Annual Report, 2008

THE COLLEGE OF SCIENCE
TEXAS A&M UNIVERSITY

College Station, Texas
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A. Foreword from Dean H. Joseph Newton

As dean of the College of Science at Texas A&M University, it is my obligation and privilege each fall to take stock of our progress toward our three-part university mission - teaching, research and service - and to reevaluate our collective commitment to ongoing excellence in all respective phases.

I am pleased to report that, at a time when our nation is concerned about its global future in science and technology, the Texas A&M College of Science continues to deliver on its promise to advance discovery and solve real-world problems. In the past year alone, our scientific ingenuity has resulted in hundreds of top-notch graduates and more than $42 million in sponsored research projects that create new knowledge and drive economies around the world.

In 2008 our teaching, research and service highlights were many and magnified. To name but a representative few, Biology’s Rene Garcia was selected as a Howard Hughes Medical Institute Investigator - the only at Texas A&M. Marlan Scully was elected as a fellow of the American Academy of Arts and Sciences, one of the country’s oldest learned societies. Robert Tribble completed his three-year term as chair of the Department of Energy/National Science Foundation Nuclear Science Advisory Committee. Mike Speed was inducted into the College of Science Academy of Distinguished Former Students. In addition, the Board of Regents approved the $25 million Institute for Applied Mathematics and Computational Science (IAMCS), one of four international interdisciplinary scientific research centers established by Saudi Arabia’s King Abdullah University of Science and Technology (KAUST) on the basis of our proven excellence in these global research areas.

On a campus achievement front, Chemistry’s Daniel Singleton and David Bergbreiter were honored with university-level Distinguished Achievement Awards in Teaching and Research, respectively. Four faculty were promoted to distinguished professor, Texas A&M’s highest faculty rank reserved for those deemed by their peers as among the top five percent of scientists worldwide in their field. For the third consecutive year, multiple college staff members received President’s Meritorious Service Awards, the university’s top recognition for staff excellence.

As a college and a university, we made our final hires under the faculty reinvestment program, including neurobiologist Jack McMahan as head of the Department of Biology; mathematician Ron DeVore as holder of the Koss Endowed Professorship in Mathematics; chemists Tadhg Begley and Karen Wooley as holders of the Robert A. Welch Foundation Chair and W.T. Doherty-Welch Foundation Chair in Chemistry, respectively; and astronomer Darren DePoy as holder of the Rachal-Mitchell-Heep Endowed Professorship in Physics. We also dedicated the Charles R. ’62 and Judith G. Munnerlyn Astronomical Laboratory and Space Engineering Building, which was renovated under faculty reinvestment.

In 2008 as in years past, I thank each of you, not only for another year of great achievement, but also for the continued distinction you bring to both Texas A&M University and the College of Science in your efforts to deliver the highest quality of science education, scholarly research, and technical expertise to benefit our world.
B. Statistical Snapshots

The following statistics are cited as follows:

Faculty

▷ Office of Institutional Studies and Planning (OISP). (Fall 2004, Fall 2005) TAMU Faculty as Reported by Academic Departments, Summary by TAMU Rank/Ethnicity by Tenure/Gender.

▷ Compiled from the College of Science Faculty Database. (Fall 2006, Fall 2007, Fall 2008) Baselines, Title, Gender, Ethnicity.

Research

▷ Compiled from the College of Science Dean Database and Sec 7.1 of Each Corresponding Department.

Student

▷ Office of Institutional Studies and Planning (OISP). (Fall 2004, Fall 2005, Fall 2006, Fall 2007, Fall 2008) Enrollment Profile, Headcount by Major by Level, Fall for [Year].

Teaching

▷ SCH: Undergraduate and Graduate - Office of Institutional Studies and Planning (OISP). (Spring 2004 - Fall 2008) SCH Summaries by College for [Semester] [Year].


Calculations to obtain WSCH/FTE:

▷ WSCH/FTE (Dept) = \( \frac{\text{WSCH for Dept}}{\text{FTE for Dept}} \)

▷ WSCH/FTE (College) = \( \frac{\sum (\text{WSCH for all CLSC Depts})}{\sum (\text{FTE for all CLSC Depts})} \)
## Faculty Snapshot

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*Minority= Black and/or Hispanic
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### Graduate Majors (Fall)

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### SCH: Graduate

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### WSCH (Weighted Semester Credit Hours) in thousands

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<td>2006</td>
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1. Foreword from the Department Head

2008 was a year of significant transitions for the Department of Biology. Our former head, Dr. Vincent Cassone, left to become head of the Biology Department at the University of Kentucky. Dr. Cassone had been at Texas A&M since 1987, and he was instrumental in helping transform the department from one focused almost exclusively on teaching to its current, more balanced form. Vinnie’s goodbye party was the highlight of the College Station social season.

We also said goodbye to Jim and Susan Golden, who came to the department in 1986. They, too, had critical roles in transforming the department into its current state. Their leadership will be missed, but the positions they were offered at UC San Diego were a great opportunity for them to expand their research programs.

'Sneaky' Pete Rizzo retired after a long and colorful career. He taught 1,300 undergraduates each year, so his departure leaves a huge hole in our freshman teaching program.

On the plus side, we recruited Dr. U.J. McMahan, a neurobiologist previously at Stanford University, to be our new department head, beginning in December, 2008. At Stanford, Dr. McMahan served in a variety leadership positions, including Director of the Interdepartmental Neurosciences Ph.D. program, Chair of Department of Neurobiology, and Chair of the Committee on Graduate Studies.

Drs. Xiaorong Lin and Charles Criscione arrived in 2008, as our last hires under the faculty reinvestment plan. We also recruited Dr. Mark Harlow, who started in Feb. 2009, and Dr. Steve Lockless, who will start in August, 2009. Both Drs. Harlow and Lockless will be housed in new Interdisciplinary Life Sciences Building, along with Dr. McMahan.

In addition to all of the arrivals and departures, 2008 brought great news for our current faculty. Dr. Paul Hardin was promoted to Distinguished Professor on September 1, 2008, largely in recognition for his groundbreaking work establishing transcriptional feedback loops as a major component of biological time-keeping systems. Dr. L. Rene Garcia was appointed as the first ever Howard Hughes Medical Institute Investigator at Texas A&M. This is huge honor for him, our department, and the university as a whole.

Finally, the 2008 fall semester was enlivened by Hurricane Ike, which added over 350 students from the Galveston campus into our already full freshman biology program. Our extraordinary staff, under the leadership of Dr. Ira Greenbaum and Ms. Tonna Harris-Haller, were able to accommodate this massive influx of students, professors and teaching assistants. They literally turned a disaster into a positive experience and salvaged the semester for one-quarter of the entire Galveston student body.

All of the transitions and challenges in 2008 left the Biology Department in a much stronger position than before, and we hope to continue this trend in 2009.
2. Departmental Statistics

This section contains information, clarified by each department and gathered from the following sources:

I. Personnel

Tenure-Track Faculty

▷ Queried from the College of Science Faculty Database. (Fall 2007) Baselines, Title, Gender, Ethnicity, Queried from the College of Science Dean Database (Fall 2008) FacultyList_FINAL.

Non-Tenure-Track Faculty

▷ Provided by the Department (Fall 2007), Queried from the College of Science Dean Database (Fall 2008) FacultyList_nonTTF.

Postdoctoral Fellows

▷ Provided by the Department

Graduate Student/Undergraduate Majors

▷ Office of Institutional Studies and Planning (OISP). (Fall 2007, Fall 2008) Enrollment Profile, Headcount by Major by Level, Fall for [Year].

Support Staff

▷ Provided by the Department

II. Instructional Activities

Graduate Semester Credit Hours/Undergraduate Semester Credit Hours

▷ SCH: Undergraduate and Graduate - Office of Institutional Studies and Planning (OISP). (Fall 2008) SCH Summaries by College for [Semester] [Year].

PhD Degrees/Masters Degrees

▷ Queried from COGNOS and the College of Science Dean Database Degrees_Grad.

Undergraduate Degrees

▷ Queried from COGNOS and the College of Science Dean Database Degrees_Undergrad.

III. Research Activities

Research Publications

▷ Queried from Web of Science® and compiled from the College of Science Dean Database Publications_COUNT.

Research Presentations

▷ As reported by faculty and compiled from the College of Science Dean Database Presentations_COUNT.

Federal/State/University/Private/Industrial/International/Other Government

▷ Gathered from research proposals, research award notices, as reported by faculty, compiled from the College of Science Dean Database, Sec. 7.1 of following department annual report.
## 2.1 Statistical Abstract

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### II. Instructional Activities

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<tr>
<td>a. Graduate Semester Credit Hours</td>
<td>2,285</td>
<td>2,357</td>
</tr>
<tr>
<td>b. Undergraduate Semester Credit Hours</td>
<td>37,169</td>
<td>37,137</td>
</tr>
<tr>
<td>c. PhD Degrees</td>
<td>10</td>
<td>9</td>
</tr>
<tr>
<td>d. Masters Degrees</td>
<td>7</td>
<td>9</td>
</tr>
<tr>
<td>e. Undergraduate Degrees</td>
<td>285</td>
<td>311</td>
</tr>
</tbody>
</table>

### III. Research Activities

<table>
<thead>
<tr>
<th>Category</th>
<th>2007</th>
<th>2008</th>
</tr>
</thead>
<tbody>
<tr>
<td>a. Research Publications</td>
<td>104</td>
<td>89</td>
</tr>
<tr>
<td>b. Research Presentations</td>
<td>99</td>
<td>99</td>
</tr>
<tr>
<td>c. Federal</td>
<td>5,224,633</td>
<td>4,259,913</td>
</tr>
<tr>
<td>d. State</td>
<td>76,504</td>
<td>118,362</td>
</tr>
<tr>
<td>e. University</td>
<td>4,164</td>
<td>5,808</td>
</tr>
<tr>
<td>f. Private/Non-Profit</td>
<td>283,498</td>
<td>470,525</td>
</tr>
<tr>
<td>g. Industrial/Corporate</td>
<td>10,450</td>
<td>179,533</td>
</tr>
<tr>
<td>h. International</td>
<td>4,864</td>
<td>8,694</td>
</tr>
<tr>
<td>i. Other Govt</td>
<td>0</td>
<td>0</td>
</tr>
<tr>
<td><strong>Total</strong></td>
<td><strong>5,604,114</strong></td>
<td><strong>5,042,836</strong></td>
</tr>
</tbody>
</table>
3. Honors & Awards, 2008

By Faculty
▷ This section contains all honors and awards, as reported by individual faculty members, during the calendar year 2008.

By Students
▷ This section contains all honors and awards, as reported by the department, during the calendar year 2008.
## 3.1 Honors & Awards Received by Faculty, 2008

<table>
<thead>
<tr>
<th>Name</th>
<th>Award</th>
</tr>
</thead>
<tbody>
<tr>
<td>G. Carney</td>
<td>Teaching Award, Center for Teaching Excellence</td>
</tr>
<tr>
<td>C. Criscione</td>
<td>Young Investigator Award Honorable Mention, American Society</td>
</tr>
<tr>
<td></td>
<td>of Tropical Medicine and Hygiene</td>
</tr>
<tr>
<td>R. Garcia</td>
<td>Howard Hughes Medical Institute Investigator, Howard Hughes Medical</td>
</tr>
<tr>
<td></td>
<td>Institute</td>
</tr>
<tr>
<td>M. Wicksten</td>
<td>Special Recognition at the Sixth Reunion in Honor of Professor</td>
</tr>
<tr>
<td></td>
<td>Alejandro Villabos, Mazatlan, Mexico, Universidad Nacional Autonoma</td>
</tr>
<tr>
<td></td>
<td>de Mexico</td>
</tr>
<tr>
<td>M. Zoran</td>
<td>Distinguished Achievement Award - Teaching, The Association of Former</td>
</tr>
<tr>
<td></td>
<td>Students</td>
</tr>
</tbody>
</table>
3.2 Honors & Awards Received by Students, 2008

Graduate

▷ 2nd Place –Taxonomy Winner
   Anand Narayanan
   Sujita Sukumaran

▷ 3rd place –Taxonomy Winner
   Zane Lybrand

▷ American Museum of Natural History Lerner-Gray Fund for Marine Res.
   Clay Small

▷ AR & MB Turbeville Endowed Scholarship
   Mahesh Padanad

▷ ASM Kadner Institute for Careers in Microbiology
   Ramona Aldea

▷ Biology Doctoral Merit Awards
   Brigittee Leboeuf

▷ Cary N. Smith ’34 Scholarship
   Anand Narayanan

▷ Cotton Incorporated Fellowships
   Carla Young

▷ Graduate Student Teaching Award
   Lindsay Bennett
   Tysheena Charles
   Alisa Womac

▷ Lawrence S. Dillon Distinguished Graduate Student Award
   Bryan Krock

▷ National Science Foundation GK-12 Mini-Grant Award
   Carol B. Johnson

▷ National Science Foundation GK-12 Teaching Fellowship
   Carol B. Johnson
   Sunny Scobell

▷ National Science Foundation IGERT Trainee
   Zachary Culumber

▷ Pinnacle Honor Society, Texas A&M Chapter Inductee
   Anand Narayanan

▷ Session Winner
   Sujita Sukumaran
Session Winner–1st Place Taxonomy Winner
Alisa Womac

Sigma Xi Grant
Angela Witmer

Sigma Xi Grant-in-Aid of Research
Clay Small

TAMU EEB Graduate Student Travel Grant
Clay Small

Texas A&M University Academic Excellence Award
Mahesh Padanad

Texas A&M University J. Malon Southerland Aggie Leader Scholarship
Mahesh Padanad

Undergraduate

Distinguished Student Award
Alexis Bennet
Ashley Ratley

Dow Aggie Endowed Scholarship in Science
Claire Allison

Emily & Robert Walker ’45 Endowed Scholarship
Breanne Riley

George Reichel ’70 Endowed Scholarship in Science
Veronica Alanis

H.R. Lewis Scholarship
Jennifer Caero
Elizabeth Drone
Craig Lilie
Amanda Strickland
Kyle Westbrook
Chester Wu

Howard Gravett Endowed Scholarship
Jessica Espinosa
Michael Ledbetter

J. W. Birdwell ’28 Endowed Scholarship in Science
Hilary Hoff

Jessica Jon Chancellor Memorial Lifelines Scholarship
Paul Fickey

John B. and Ora Mae Dougherty Memorial Lifelines Scholarship
Angela Gilbert
▶ John Todd Willis ’44 Endowed Memorial Scholarship in Biology
  Hanna Wheeless

▶ Julia Ball Lee Scholarship
  Courtney Faubion
  Jung Lee
  Michelle Lee
  Jason Shurb

▶ Lifelines Endowed Scholarship Program
  Andrew Hawrylak
  Kirsten Monson

▶ Lola Mae & Charles LaMotte Memorial Endowed Scholarship
  Karan Patel

▶ Melvin Hamilton ’71 Memorial Endowed Scholarship
  Ryan McCormick

▶ Patricia & William Gordon ’67 Scholarship in Science
  Anna Khuu

▶ Poster Competition 1st Place
  Sarah Ezell

▶ Poster Competition 2nd Place
  Bethany Nicely

▶ Poster Competition 3rd Place
  Annika Butler

▶ Richard B. Grant, Jr. ’29 Endowed Scholarship
  Andrew Smith

▶ Susan Luehr ’84 Endowed Lifelines Scholarship in Biology
  Yun Coronado

▶ William A. Triche and Homer A. Triche Endowed Scholarship Fund in Engineering, Science and Medicine
  Steven Brady
  Hardik Patel
  Steven Smith
  Courtney Taylor
  Gregory Whitaker

▶ Woodie Bennett Mike Scholarship
  Leyla Choobineh
  Nicole Strickland
4. Students, 2008

This section contains all degrees awarded, as reported by the department, during the calendar year 2008.
4.1 Graduate Degrees Awarded, 2008

Fall

▷ M.S.

Tysheena Perkins Charles  Unraveling The Phenotype Of Colicin Cytoplasmic Import (cim) Mutants
Advisor(s): M. Benedik

Zachary Pierce Cress  Female Preference for Complex Male Displays in Hybridizing Swordtails
Advisor(s): G. Rosenthal

Cathryn Renee Kelton  The Role of Wnt8 in Posterior Mesoderm Formation
Advisor(s): A. Lekven

Sujita Sukumaran  Analysis of Photoreceptor Outer Segment Morphogenesis in Zebrafish Ift57, Ift88 And Ift172 Intraflagellar Transport Mutants
Advisor(s): B. Perkins

Amanda Mae Thronson  Effect of Variation in Freshwater Inflow on Phytoplankton Productivity and Community Composition in Galveston Bay, Texas
Advisor(s): D. MacKenzie

▷ Ph.D.

Juan Manuel Anzola Lagos  Computational Identification and Evolutionaty Analysis of Metazoan Micrornas

Guogang Dong  Cellular Function and Localization of Circadian Clock Proteins in Cyanobacteria
Advisor(s): S. Golden

Robert James II Pratt  Meiotic Trans-sensing and Meiotic Silencing In Neurospora Crassa
Advisor(s): R. Aramayo

Spring

▷ M.S.

Biwei Guo  Functional Analysis of the Arabidopsis Pht4 Family of Intracellular Phosphate Transporters
Advisor(s): W. Versaw

Lan Wang  Engineering Ph Tolerant Mutants of a Cyanide Dihydratase of Bacillus Pumilus C1 and Identifying Constraints on Substrate Specificity in Nitrilases
Advisor(s): M. Benedik

▷ Ph.D.

Stephen Paul Karaganis  Roles for Extra-hypothalamic Oscillators in the Avian Clock
Advisor(s): V. Cassone
Parthasarathy Krishnan  Cellular and Molecular Mechanisms that Regulate Olfactory Rhythms in Drosophila Melanogaster
Advisor(s): P. Hardin

Brenley Kathleen McIntosh  Bacteriophage Ms2 L Protein: Genetic and Biochemical Characterization

Rebecca Lynn White  What Makes The Lysis Clock Tick? A Study Of The Bacteriophage Lambda Holin

Summer

▷ M.S.

Lacy Jamel Basile  Cyanide-degrading Enzymes for Bioremediation
Advisor(s): M. Benedik

He Huang  The Light Mutant Oscillator (lmo)
Advisor(s): D. Bell-Pedersen

▷ Ph.D.

Maria Ramona Aldea  Identification of Novel Regulatory Mechanisms Controlling Heterocyst Development in Anabaena Sp. Strain Pcc 7120
Advisor(s): J. Golden

Xiaoyu Qu  Timing Matters: The Role of Circadian Clock Genes in Development and Toxin Responses
Advisor(s): D. Earnest
4.2 Undergraduate Degrees Awarded, 2008

Fall

▷ B.A.

Ellen Marie Berggren
Emily Renee Gilmore
Nneka I. Okafor
Jase Robert Perry
Reagan Michael Ratcliff
Margaret Lucille Rebensdorf
Philip Duran Stephens

▷ B.S.

Aubry Elizabeth Armendariz
Heather Michelle Barr
Cheylee Nicole Bingham
Joel Lee Burton
Chase Matthew Carver
Rose Evlynn Cortina
Il Min Dayton
Sadie Cherise Eickenhorst
Hope Michelle Erwin
Krystin Renee Falconer
Winston Alberto Faltine
John Tyson Fetzer
Anne Marie Finnegan
Shoko Fukuda
Vanessa Lynn Glidden
Anushri G. Haldipur
Kyle Lavirl Hale
Syed Arsalan Hashmi
Amir A. Hassan
Andrew Travis Haynes
Hilary Bernice Hoff
Zachary Peter Jeong Hoffman
Rachel Leanne Hornsby
Lael David Hubbard
Jonathan Edward Hurst
Norman Lee Jetty
Kimberly Ann Kackley
Ashley Ann Karl
Kelly Christina Keiser
April Lee Kemp
Thomas William Kessinger
Kavila Gopal Krishnan
Ashley Nicole Kunkel
Elizabeth Faith Larkin
Jung Taek Lee
Andrew Milam Long
Christopher Paul Martin
Hilary Marie Maryoung
Westin Nash Massey
Anna Whitney McCall
Blake E. Mobley
Timothy Ray Montalvo
Jenny Katherine Moore
Christopher Lee Morrell
Lee Barret Murphy
Thuchien Thi Nguyen
Hardik Dineshbhai Patel
Allison Leah Persons
Lindsey Lea Phillips
Felipe-Andres Piedra
Clayton Chauvin Ramsden
Michelle Elissa Roberts
Andra Brittian Robinson
Sarah Patricia Rodriguez
Paola Roldan
Alicia Michuelle Sanders
Katy Louise Schumann
Darren Michael Seibert
Vanessa Mary Seyle
Pankil Sureschandhr Shah
Hallie Virginia Simpson
Bradley Fletcher Smith
James Wayne Sobol
Kenneth Charles Stupka
Stephen Douglas Thompson
Kenneth Andrew Tran
Blake Joseph Trial
Sean Constantine Turner
Pete Valadez V
Brandy Pauline Velten
Karina Joy Vercie
Jonathan Charles Widdig
Hailey B. Womack
Ashley Rene Wright
Sheena Marie Youngs

Spring

▷ B.A.

Jeffrey Ryan Baron
Megan Jane Calk
Lauren Beth Clevenger
Jordan Dewayne Criswell
Johanna Blair De Haan
Jessie Elizabeth Deville

SEC. 4.2 UNDERGRADUATE DEGREES
Daniel Michael Dooley
Jamie Lee Dunaway
Jennifer Denise Ellis
Shannon Elizabeth Fuller
Lynndi Marie Futch
Amy Michele Hlavaty
Chelsea Curran Hook
Shelley Grace Linder
Maegan Christine Moeller
Alan D. Tien Nguyen
Steven Michael Schmerber
Bianca Rochee La Tese Smith
Dee Ellyn Tekell
John Oliver Tyler
Drew Michael Vanderbrook
Lauren Michelle Warzon
Brady Wade Whitmer

▷ B.S.

Megan Louise Albert
Lindsay Anne Aldrich
Nikki Lorraine Alexander
Sunil N. Aradhya
Patrick Andrew Armstrong
Cameron Michelle Armstrong
Candace Hodges Arredondo
Michael Don Arrington
Nader Ali Ayub
Stephanie Lynn Barker
Erica Leigh Bartlett
Kevin Ali Bazazzadeh
Ryan Thomas Becker
Heather Deann Belveal
Alexis Marie Bennet
Jillian Leah Blackwell
Matthew Frank Blazek
Alison Audrey Bockoven
Johnathan Steel Brown
Kyle Anthony Brown
Ashley Young Bryant
Justin Taylor Bull
Heather Marie Cahill
Carolyn Ann Campbell
Evan Tyler Cettie
Luke Andrew Wilson Chambless
Heather Anne Chance
Hoang Oanh Thi Chau
Diwen Chen
Thanh Tran Chiem
Paul Michael Claiborne
Paul Jason Clair
Cassidy Michelle Clark
Candace Amber Cleveland
Amanda Kim Clinton
Elizabeth Anne Clinton
Stephen Michael Combes
Rebecca Neili Cooksey
Crystal Rebecca Corbin
Laura Elizabeth Craig
Cassie Lavonne Crossland
Ian Christian Davis
Brittany Lee Deloach
Jennifer Elise Dierksen
Jeremy Timothy Dixon
Brandon Ross Dodds
Stephen Douglas Dooley
Zoe Alexandra Douglas
Mitchell Aaron Drennan
Kimberley Michelle Dudley
Jeffrey Mitchell Duggan
Paula Jordan Duquesnay
Stacey Lynn Ellisor
Laura Kendall Erskine
Miguel Alejandro Escobar
Hailey Michelle Estenson
Ashley Elizabeth Everett
Sarah Catherine Ezell
Halley Pierson Flammer
Melanie Ursula Garza
Roberto Maciel Garza
Luis Jarrel Gilbert
Serafin Gomez
Amy Lizette Gonzalez
Mikel Salvador Gorbea
Charley Clifton Gruber
Daniel Zachary Grunspan
Daniel Gregory Guerra
Larissa Louise Hamaker
Van N. Hoang
Blake Louis Hoedebecke
Timothy Lewis Holcomb
Maura Jane Holcomb
Michelle K. Hruska
Annie Huang
Sarah Elizabeth Hulsey
Jessica Angela Hyde
Jerry Drue Ivicic
Cassie Elizabeth Reyna
Charles Mcclain Roitsch
Lori Diann Rollo
Tyler Raymond Runde
William Andrew Russey
Anna Paige Schmidt
Aaron Kyle Schmidt
Idalia Silva
Geoffrey Patrick Simpson
Laura Jane Sinclair
Rabia Qamer Soleja
Gregory Alan Stadter
Nikolas Allen Stajduhar
Bryan David Stephens
Shannon Carol Stohlgren
Sheryl Ruth Strauch
Jessica Layne Striegler
Monique Michelle Stutes
Megan Elizabeth Suhor
Adam Jon Summers
Brandon Ray Thomas
Megan Elizabeth Thompson
Cory Calvin Thurman
Blake Winston Treadaway
Erica Renee Trojacek
Tri Tan Truong
Jaime Daniel Viscarra
Anika Sarah Voisey
Brittani Marissa Wall
Matthew William Ward
Stacy Elizabeth Whitfill
Heather Joyce Wilkinson
Janet Evette Williams
Shana Marie Williamson
Christopher Scott Wilson
Clayton Paul Windham
Travis Weaver Winston
Ashleigh Rae Witthuhn
Andrew Marcus Woller
Janie Ann Womac
Pei Huang Wu
Ryann Alagrian Wynn
Sewon Yoo

Summer

▷ B.A.

Kirsten Nicole Armstrong
Katie Denise Doherty
Olivia Marguerite Masters

SEC. 4.2 UNDERGRADUATE DEGREES 31
Jason Aubrey Pittman
Mellissa Preville
Jose De Jesus Valadez
Megan E. Wendling

Kimberly V. Baeza
Aubrey Elizabeth Baxter
Traci Anna Brast
William Zachary Bussey
Jaime Cesar Campos
Randall Breeann Carter
Jason Neil Cochrum
Hector Alexander Colunga
Marybeth Dietz
Catherine Elizabeth Dobbs
David Andrew Eastes
Christina Marie Franke
Taylor Elyse Grant
Brenton James Harris
Ashley Renee Issac
Alan James Kelleher
Michael Wayne Lindsey
Michelle Audrey Mann
Joseph William Mannel
Ashley Michelle Meaders
Thomas Douglas Nash
Kanon Frank Oswald
Sheena Marie Otto
Phily Philip
Amanda Meagan Ann Robertson
Zachary Alaric Shenkir
Kira Elizabeth Smith
Heather Jean Tower
Heidi Marie Willett
Markie Lynette Yeager
5. Colloquium and Seminar Speakers, 2008

Colloquium and Seminar Speakers

1/29/2008  Carl Thummel  
Unviersity of Utah  
Regulation of Metabolism by Nuclear Receptors in Drosophila

2/5/2008  David Featherstone  
University of Illinois at Chicago  
Molecular Mechanisms Controlling Glutamatergic Synapse Strength and Fly Sex

2/12/2008  Gerald Wilkinson  
University of Maryland  
Sexual Selection, Genomic Conflict and Speciation in Stalk-Eyed Flies

2/19/2008  Bill Kelly  
Texas A&M University  
Epigenetic Regulation of the X Chromosome in C. Elegans

2/26/2008  Lawrence Griffing  
Texas A&M University  
And a River Runs Though it: Moving and Shaping the Endoplasmic Reticulum of Plant Cells

3/5/2008  Mike Blatt  
University of Glasgow

3/18/2008  Norm Stacey  
University of Alberta  
Hormonally-Derived Sex Pheromones in Fish: Phylogenetic Patterns from Olfactory Studies

3/25/2008  Haiyang Wang  
Cornell University  
Transcriptional and Posttranscriptional Regulation of Light Signaling in Arabidopsis

4/1/2008  Guillermmina Alcaraz  
Universidad Nacional Autónoma de Mexico

4/8/2008  Kenneth Miller  
Oklahoma Medical Research Foundation  
Lighting a Path to the Synapse: Forward Genetic Approaches to Understanding how Synaptic Signaling Pathways Animate Animals

4/15/2008  Rama Ranganathan  
Southwestern Medical School  
The Evolutionary Design of Proteins

4/22/2008  John Sisson  
The Role of Drosophila Fragile X Mental Retardation Protein in Embryonic Morphogenesis
9/9/2008  Jerry Shay  
*University of Texas Southwestern Medical Center*  
Aging and Cancer: Are Telomeres and Telomerase the Connection?

9/16/2008  Wayne Versaw  
*Texas A&M University*  
Molecular Physiology of Plastidic Phosphate Transport in Arabidopsis

9/23/2008  Adam Jones  
*Texas A&M University*  
Bateman’s Principles and the Intensity of Sexual Selection: Insights from Male-Pregnant Pipefishes and Seahorses

9/30/2008  Jim Erickson  
*Texas A&M University*  
Chromosome Counting in Drosophila sex Determination: Adding up the Xs

10/7/2008  Gil Rosenthal  
*Texas A&M University*  
Choices and Their Consequences: Communication Mechanisms, Mating Biases, and the Evolution of Hybrid Zones

10/14/2008  Mike Manson  
*Texas A&M University*  
The Little Engine That Could Meets the Glowing Pole. Bacterial Motility and Chromotaxis Unveiled

10/21/2008  Jeffrey Segall  
*Albert Einstein College of Medicine*  
The Roles of EGF Receptor Family Members in Breast Cancer Metastasis

10/28/2008  Mark Harlow  
*Stanford University School of Medicine*  
The Structure of Active Zone Material and the Lumen of Synaptic Vesicles as Revealed by Electron Microscope Tomography

11/4/2008  Mike Ryan  
*University of Texas*  
Sexual Selection and Communication in the Tungara Frog: Some Studies in Brain, Behavior & Evolution

11/11/2008  Scott Dougan  
*University of Georgia*  
TGF-beta Signaling in Development and Disease

11/18/2008  Arlen Johnson  
*University of Texas*  
Getting a Grip: Nuclear Export of Ribosomes

11/25/2008  Franz Tax  
*University of Arizona*  
Receptor Kinases in Arabidopsis Embryos and Meristems-Instigators or Bystanders?
6. Faculty, 2008

Rodolfo Aramayo .......................... Associate Professor
Karl J. Auferheide .......................... Associate Professor
Mery Basturkmen .......................... Research Assistant Professor
Deborah Bell-Pedersen .......................... Professor
Michael J. Benedik .......................... Professor
Lisa Campbell .......................... Associate Professor (J)
Ginger E. Carney .......................... Assistant Professor
Vincent M. Cassone .......................... Professor
William B. Cohn .......................... Lecturer
Charles D. Criscione .......................... Assistant Professor
Sumana Datta .......................... Associate Professor (J)
David J. Earnest .......................... Associate Professor (J)
James W. Erickson .......................... Associate Professor
Rene Garcia .......................... Associate Professor
James W. Golden .......................... Professor
Susan S. Golden .......................... Distinguished Professor
Ira F. Greenbaum .......................... Professor
Lawrence R. Griffing .......................... Associate Professor
Linda Guarino .......................... Professor (J)
Timothy C. Hall .......................... Distinguished Professor
Paul E. Hardin .......................... Distinguished Professor
Andreas K. Holzenburg .......................... Professor
Rodney Honeycutt .......................... Professor (J)
Carol B. Johnson .......................... Senior Lecturer
Adam G. Jones .......................... Assistant Professor
Walter M. Kemp .......................... Professor
Arne C. Lekven .......................... Associate Professor
Xiaorong Lin .......................... Assistant Professor
Robyn Lints .......................... Assistant Professor
Thierry Lints .......................... Assistant Professor
Duncan S. MacKenzie .......................... Associate Professor
Keith A. Maggert .......................... Assistant Professor
James R. Manhart .......................... Associate Professor
Michael D. Manson .......................... Professor
Thomas D. McKnight .......................... Professor
U.J. McMahan .......................... Professor
Gus J. Menger .......................... Lecturer
Rita B. Moyes .......................... Senior Lecturer
Wang K. Ng .......................... Research Assistant Professor
Comer O. Patterson .......................... Professor
Alan E. Pepper .......................... Associate Professor
Brian D. Perkins .......................... Assistant Professor
Hongmin Qin .......................... Assistant Professor
Bruce B. Riley .......................... Professor
Peter J. Rizzo .......................... Associate Professor
Gil G. Rosenthal .......................... Assistant Professor
Kathryn J. Ryan .......................... Assistant Professor
Matthew S. Sachs .......................... Professor
Deborah A. Siegele .................. Associate Professor
Michael Smotherman .............. Assistant Professor
Thomas A. Stidham ................ Assistant Professor
Max Summers ........................... Professor (J)
Andrew Tag .......................... Lecturer
Lathrop Taylor ...................... Lecturer
Terry L. Thomas .................... Professor
R. Kathryn Vaughan ................ Lecturer
Wayne K. Versaw .................. Assistant Professor
Wei Wan ............................ Senior Lecturer
Mary K. Wicksten .................. Professor
Hugh D. Wilson .................... Professor
Leslie K. Winemiller ............. Senior Lecturer
Thomas K. Wood ..................... Professor (J)
Jin Xiong ........................... Assistant Professor
Ry Young ............................ Professor (J)
Wangjie Yu ......................... Research Assistant Professor
Mark J. Zoran ..................... Associate Professor

*For the Annual Report, Faculty are defined as tenure and non-tenure track employees who were employed at any time during 2008 (01/01/2008-12/31/2008).*
6.1 Professional Activities, 2008

This section contains information, as reported by individual faculty members, encompassing each faculty member’s professional activities for the calendar year 2008.

Subsections of professional activities are defined as follows:

Honors and Awards
▷ All professional honors and awards, both internal and external.

Service Activities
▷ All professional service and leadership roles, including: departmental, college, university, state, national and international.

Teaching
▷ Classes taught during the Spring, Summer and Fall sessions of 2008.
▷ Any missing enrollment numbers were gathered from the Student Information Management System (SIMS) at Texas A&M University.

Research Projects
▷ All research projects, funded and unfunded.
▷ Whenever possible, all research-related employees of that faculty member are listed along with the citation. Key for employees: (P)=Postdoc, (G)=Graduate Student, (U)=Undergraduate Student.
▷ Renewals are marked by “(REN)” at the beginning of their title.
▷ Unfunded grants are marked by “(UNFUNDED)” at the end of the citation.
▷ Additional information (including PIs, CoPIs, and funding) on all funded grants are listed in Section 7.

Presentations
▷ All posters, invited and contributed lectures (plenary, conferences, colloquia, seminars, etc.).
▷ Whenever reported, posters, invited and contributed lectures are noted in parentheses following the citation.
▷ Citations are in chronological order.

Publications
▷ All printed materials published during 2008.
▷ Pre-press, in-press and submitted publications were not included.
▷ Citations were formatted in APA Style and are in alphabetical order by lead author.
• ADDITIONAL UNIVERSITY TITLES HELD DURING 2008
  ⊳ Member, Interdisciplinary Faculty, Biotechnology, [2006]
  ⊳ Member, Interdisciplinary Faculty, Genetics, [2006]

• SERVICE DURING 2008

  International
  ⊳ Editorial/Board: PLoS ONE (of Genetics and Genomics) (Section Editor), International Journal of Biological Sciences, Fungal Genetics Newsletter, PLoS ONE, The Open Mycology Journal (Editor)
  ⊳ Committee/Panel: Fungal Genetics Newsletter Editorial Board (Member), Public Library of Science Editorial Board (Member), The International Journal of Biological Sciences Editorial Board (Member), The Open Mycology Journal Editorial Board (Member)

  University
  ⊳ Research Group: Laboratory for Genome Bioinformatics (Director)

  Department
  ⊳ Committee/Panel: Computer Committee (Chair), Graduate Faculty of the Health Science Center (Member), Graduate Recruitment Committee (Chair)

  Interdisciplinary/Intercollegiate
  ⊳ Research Group: Chromosome Biology (Member), Program for the Biology of Filamentous Fungi (Member)

• TEACHING ASSIGNMENTS DURING 2008

  Spring
  ⊳ BIOL 485. — Directed Studies (total enrollment: 1)
  ⊳ BIOL 491. — Research (total enrollment: 1)
  ⊳ BIOL 681. — Seminar (total enrollment: 11)
  ⊳ BIOL 691. — Research (total enrollment: 4)
  ⊳ GENE 691. — Research (total enrollment: 2)
  ⊳ MICR 691. — Research (total enrollment: 2)

  Summer
  ⊳ BIOL 485. — Directed Studies (total enrollment: 1)
  ⊳ BIOL 691. — Research (total enrollment: 2)
  ⊳ GENE 691. — Research (total enrollment: 1)
  ⊳ MICR 691. — Research (total enrollment: 2)

  Fall
• RESEARCH PROJECTS DURING 2008

Federal

▷ (REN) Genetic and Molecular Study of Meiotic Trans-sensing and Meiotic Silencing, National Institutes of Health, coworkers: D. Whan Lee (P), R. Millimaki (G), R. Pratt (G)

• PRESENTATIONS DURING 2008


▷ “Cell and Molecular Biology Program,” The University of Texas, Austin, TX, November, 2008. (Invited)

• PUBLICATIONS DURING 2008


KARL J. AUFDERHEIDE
ASSOCIATE PROFESSOR  (979) 845-7775
BIOL-Cell/Developmental Biology  kauf@mail.bio.tamu.edu

• SERVICE DURING 2008

University
▷ Advisory Board: University Student Fiscal Appeals Panel (Member)
▷ Committee/Panel: Blinn College/Texas A&M University Liaison Committee (Member),
  Core Curriculum Council (Faculty Senate) (Member), Faculty Senate (Faculty Senator -
  06), Faculty Senate Personnel and Welfare Committee (Member), Faculty Senate Planning
  Committee (Member), Security Awareness Committee (Member)

College
▷ Service Position: College of Science, Office of the Vice-President for Research (Research
  Standards Officer)

Department
▷ Committee/Panel: Annual Review & Awards Committee (Elected Member), Biological
  Instrumentation Laboratory Oversight Committee (Member), Lower Division Advisory
  Committee (Member)

• TEACHING ASSIGNMENTS DURING 2008

Spring
▷ BIOL 112. — Introductory Biology II (total enrollment: 233)
▷ BIOL 413. — Cell Biology (total enrollment: 45)

Summer
▷ BIOL 112. — Introductory Biology II (total enrollment: 46)
▷ BIOL 491. — Research (total enrollment: 1)

Fall
▷ BIOL 213. — Molecular Cell Biology (total enrollment: 80)
▷ BIOL 491. — Research (total enrollment: 2)

• PUBLICATIONS DURING 2008
  Cells Micron , vol. 39, 71-76.
▷ Gunersel, A.B.; Simpson, N.; Aufderheide, K.J.; Wang, L. (2008) Effectiveness of Cali-
  brated Peer Review for Improving Writing and Critical Thinking Skills in Biology Under-
  graduate Students Journal of the Scholarship of Teaching and Learning , vol. 8, 25-37.
• ADDITIONAL UNIVERSITY TITLES HELD DURING 2008
  ▷ Member, Interdisciplinary Faculty, Genetics, [1998]

• SERVICE DURING 2008

National
  ▷ Advisory Board: Neurospora Methods Manual (Editor), Fungal Genetics and Biology, Eukaryotic Cell (Associate Editor)
  ▷ Editorial/Board: National Science Foundation, National Institutes of Health (Review: Proposals), Fungal Genetics and Biology (Associate Editor), Molecular Microbiology, Eukaryotic Cell, Science, Genes and Development (Referee: Journals)
  ▷ Committee/Panel: National Institutes of Health Cell Biology IRG (Panel Member), National Institutes of Health, Neurogenesis and Cell Fate (Panel Member)

University
  ▷ Research Group: Center for Environmental and Rural Health (Member)
  ▷ Committee/Panel: Council of Principal Investigations Executive Committee (Vice Chair), Research Roadmap Committee (Member), Rules Committee (Member)

College
  ▷ Committee/Panel: Faculty Advisory Council (Representative-at-large)

Department
  ▷ Service Position: Graduate Student Association (Faculty Advisor)
  ▷ Committee/Panel: Chemistry: Biology Interface Training Program (Member), Executive Committee (Appointed), Genetics Faculty (Member), Graduate Programs Committee (Member), Molecular and Cell Biology Training Program (Member), Promotion and Tenure Committee (Member)

Interdisciplinary/Intercollegiate
  ▷ Research Group: Center for Research on Biological Clocks (Member), Program for Biology of Filamentous Fungi (Member)
  ▷ Committee/Panel: UBM Integrated Undergraduate Research Experiences in Biological and Mathematical Sciences (Member)

• TEACHING ASSIGNMENTS DURING 2008

Spring
  ▷ BIOL 291 — Research (total enrollment: 1)
  ▷ BIOL 351. — Fund of Microbiol (total enrollment: 97)
  ▷ BIOL 491. — Research (total enrollment: 3)
  ▷ BIOL 691. — Research (total enrollment: 2)
Gene 691. — Research (total enrollment: 1)
MICR 691. — Research (total enrollment: 1)

Summer
- BIOL 691. — Research (total enrollment: 1)
- GENE 691. — Research (total enrollment: 1)
- MICR 691. — Research (total enrollment: 2)

Fall
- BIOL 445. — Biology of Viruses (total enrollment: 55)
- BIOL 491. — Research (total enrollment: 1)
- BIOL 691 — Research (total enrollment: 2)
- GENE 691. — Research (total enrollment: 1)
- MICR 691. — Research (total enrollment: 1)

• Research Projects During 2008

Federal
- (REN) Coordination of Circadian Physiology of Diverse Species, National Institutes of Health, coworkers: R. Dekhang (G), R. dePaula (G), X. Liu (G), I. Nsa (G), Z. Brady (U), R. McCormick (U)
- (REN) Molecular Genetic Analysis of Fungal Circadian Rhythms, National Institutes of Health, coworkers: R. dePaula (P), T. Lamb (P), S. Li (P), L. Bennett (G), C. Goldsmith (G), K. Finch (U), O. Jou (U), A. Kelleher (U), P. Martinez (U), M. Wong (U)
- (REN) Molecular Genetic Analysis of Fungal Circadian Rhythms, National Institutes of Health, coworkers: J. Fazzino (Research Assistant), T. Lamb (P), B. Braden (U), O. Jou (U), P. Martinez (U)
- UBM Integrated Undergraduate Research Experiences in Biological and Mathematical Sciences, National Science Foundation

• Presentations During 2008
- York University, Toronto, Canada, January, 2008.(Invited)
- SECTS for Clocks, Texas A&M University Yearly Symposium, College Station, TX, February, 2008.(Individual)
- CRBC External Advisory Board Meeting, Austin, TX, April, 2008.(Individual)
- UBM Seminar Series, Texas A&M University, College Station, TX, April, 2008.(Individual)
- Session Organizer and discussion leader, Fungal Genetics Gordon Conference, Holderness, NH, June, 2008.(Invited)

• Publications During 2008
• ADDITIONAL UNIVERSITY TITLES HELD DURING 2008
  ▶ Member, Interdisciplinary Faculty, Genetics, [2006]
  ▶ Graduate Advisor, Biology Graduate Advising Office, Biology, [2006]

• SERVICE DURING 2008

  National
  ▶ Editorial/Board: Georgian Bilateral Grants Program (BGP) of the CRDF, U.S. Civilian Research and Development Foundation (Review: Proposals), Open Biotechnology (Advisory Board), *Applied Microbiology and Biotechnology, Fungal Genetics, J. Microbiological Methods* (Referee: Journals)

  University
  ▶ Editorial/Board: International Travel Awards (VRP) (Review: Proposals)
  ▶ Committee/Panel: Faculty Senate (Faculty Senator - 11), Faculty Senate Research Sub-committee (Member), University Grievance Committee (Chair)

  College
  ▶ Committee/Panel: Graduate Instruction Committee (Member), International Programs Committee (Member)

  Department
  ▶ Committee/Panel: Microbiology Faculty Search (Chair)

• TEACHING ASSIGNMENTS DURING 2008

  Spring
  ▶ BIOL 685. — Directed Studies (total enrollment: 4)
  ▶ BIOL 691. — Research (total enrollment: 2)
  ▶ MICR 691. — Research (total enrollment: 2)

  Summer
  ▶ MICR 691. — Research (total enrollment: 2)

  Fall
  ▶ BIOL 406. — Bacterial Genetics (total enrollment: 15)
  ▶ BIOL 491. — Research (total enrollment: 1)
  ▶ BIOL 606. — Microbial Genetics (total enrollment: 14)
  ▶ BIOL 681. — Seminar (total enrollment: 15)
  ▶ BIOL 685. — Directed Studies (total enrollment: 19)
  ▶ GENE 406 — Bacterial Genetics (total enrollment: 7)
  ▶ MICR 406 — Bacterial Genetics (total enrollment: 14)
- MICR 691. — **Research** (total enrollment: 1)

- **RESEARCH PROJECTS DURING 2008**
  
  **State**
  - (REN) Cyanide Remediation: Enzyme Modification and Immobilization, *Texas Hazardous Waste Research Center*
  - Cyanide Remediation: Enzyme Modification and Immobilization, *Texas Hazardous Waste Research Center*

  **Private**
  - (REN) Engineered Improved Micobial Nitrilases, *The Robert A. Welch Foundation*
  - Substrate Recognition Amongst Oligmeric Nitrilases, *The Robert A. Welch Foundation*

- **PUBLICATIONS DURING 2008**
• ADDITIONAL UNIVERSITY TITLES HELD DURING 2008
  ▶ Member, Interdisciplinary Faculty, Neuroscience, [2007]
  ▶ Member, Interdisciplinary Faculty, Neuroscience, [2007]

• AWARDS DURING 2008
  University
  ▶ Teaching Award, Center for Teaching Excellence

• SERVICE DURING 2008
  National
  College
  ▶ Committee/Panel: Faculty Advisory Council (Elected Member)
  Department
  ▶ Committee/Panel: Graduate Review and Admissions Committee (Member), Head Search Committee (Member), Mentoring Committee (Member), Seminar Committee (Member)
  Interdisciplinary/Intercollegiate
  ▶ Committee/Panel: Faculty of Neuroscience Admissions Committee (Member)

• TEACHING ASSIGNMENTS DURING 2008
  Spring
  ▶ BIOL 291. — Research (total enrollment: 1)
  ▶ BIOL 401. — Critical Writing in Biology (total enrollment: 77)
  ▶ BIOL 491. — Research (total enrollment: 3)
  ▶ BIOL 691. — Research (total enrollment: 2)
  Summer
  ▶ BIOL 401. — Critical Writing in Biology (total enrollment: 10)
  ▶ BIOL 691. — Research (total enrollment: 2)
  Fall
  ▶ BIOL 401. — Critical Writing in Biology (total enrollment: 35)
  ▶ BIOL 491. — Research (total enrollment: 1)
  ▶ BIOL 689. — Special Topics in (total enrollment: 8)
  ▶ BIOL 691. — Research (total enrollment: 2)
• RESEARCH PROJECTS DURING 2008

State
▷ Identifying the Neural Circuits Controlling a Complex Behavior, *Texas Higher Education Coordinating Board*, coworkers: L. Ellis (G), C. Schwedes (G), S. Grady (U), J. Pate (U), R. Whittingham (U)

• PRESENTATIONS DURING 2008

▷ “Science Writing: Practice Makes it (Almost) Perfect,” Texas A&M University Writing Center, College Station, TX, February, 2008. (Invited)
▷ “Using Model Organisms to Answer Why/How Questions,” Texas A&M University Zoology Club, College Station, TX, March, 2008. (Invited)
▷ “Podcast on Calibrated Peer Review,” Texas A&M University Writing Center, College Station, TX, July, 2008. (Invited)
▷ “Modulating Drosophila Melanogaster Reproduction: Genes, Hormones and Experience,” Division of Biology, Kansas State University, Manhattan, KS, November, 2008. (Invited)

• PUBLICATIONS DURING 2008

VINCENT M. CASSONE

PROFESSOR
BIOL-Behavior, Chronobiology, Neurobiology

- ADDITIONAL UNIVERSITY TITLES HELD DURING 2008
  - Adjunct Professor, Psychology, [2007]
  - Member, Interdisciplinary Faculty, Biotechnology, [2006]
  - Member, Interdisciplinary Faculty, Neuroscience, [2006]
  - Department Head, Biology, [2003]

- SERVICE DURING 2008
  - National
    - Editorial/Board: National Institutes of Health (Review: Proposals), National Science
      Foundation (Review: Proposals), Journal of Biological Rhythms, Journal of Neuroscience,
      PloS One, Experimental Eye Research, Physiological Genomics (Referee: Journals)
    - Committee/Panel: Math-Biology Center Panel, NSF (Member), Minority Institution
      Study Section, NINDS (Chair), Journal of Biological Rhythms (Editorial Advisory Board)
  - University
    - Service Position: ATMentors (Member)
    - Committee/Panel: Life Science Building Committee (Member)
  - College
    - Committee/Panel: Executive Committee (Member)
  - Department
    - Committee/Panel: Executive Committee (Chair)

- TEACHING ASSIGNMENTS DURING 2008
  - Spring
    - BIOL 285. — Directed Studies (total enrollment: 15)
    - BIOL 491. — Research (total enrollment: 1)
    - BIOL 601. — Biological Clocks (total enrollment: 9)
    - BIOL 691. — Research (total enrollment: 3)
  - Summer
    - BIOL 691. — Research (total enrollment: 2)
  - Fall
    - BIOL 691. — Research (total enrollment: 2)

- PUBLICATIONS DURING 2008

SEC. 6.1 PROFESSIONAL ACTIVITIES 47
Independence from Gonads and Circadian Entrainment *Journal of Biological Rhythms*, vol. 23, 49-58.


*On leave.*
• TEACHING ASSIGNMENTS DURING 2008

Spring
▷ BIOL 319. — Integrated Hum AN/PHY I (total enrollment: 234)

Summer
▷ BIOL 111. — Introductory Biology I (total enrollment: 44)

Fall
▷ BIOL 319. — Integrated Hum AN/PHY I (total enrollment: 408)

• PRESENTATIONS DURING 2008

• AWARDS DURING 2008

National
▷ Young Investigator Award Honorable Mention, American Society of Tropical Medicine and Hygiene

• SERVICE DURING 2008

International
▷ Editorial/Board: International Journal for Parasitology, Veterinarski Arhiv (Referee: Journals)

National
▷ Event: American Society of Parasitologists Meeting (Chair), American Society of Parasitologists Meeting (Organizer)
▷ Editorial/Board: Proceedings of the National Academy of Sciences-USA, Molecular Ecology, Biological Journal of the Linnean Society, BMC Ecology, Journal of Parasitology, Biological Invasions (Referee: Journals)
▷ Committee/Panel: American Society of Parasitologists Membership Committee (Member), Henry Baldwin Ward Medal Committee (Chair)

Department
▷ Event: General Overview of my Lab’s Research (Speaker), Jobs and Postdocs (Speaker)

• PRESENTATIONS DURING 2008

▷ “Molecular Epidemiology and Landscape Genetics as Tools to Examine Foci of Parasite Transmission within Host Populations,” American Society of Parasitologists, Arlington, TX, 2008. (Individual)

• PUBLICATIONS DURING 2008


Hired 09/01/2008.

Hired 09/01/2008.
• **ADDITIONAL UNIVERSITY TITLES HELD DURING 2008**
  ▷ Member, Interdisciplinary Faculty, Genetics, [2006]

• **SERVICE DURING 2008**
  National
  ▷ Editorial/Board: National Institutes of Health (Review: Proposals), Genetics (Referee: Journals)

• **TEACHING ASSIGNMENTS DURING 2008**
  Spring
  ▷ BIOL 213. — Molecular Cell Biology (total enrollment: 87)
  ▷ BIOL 691. — Research (total enrollment: 3)
  Summer
  ▷ BIOL 491. — Research (total enrollment: 1)
  ▷ BIOL 691. — Research (total enrollment: 3)
  Fall
  ▷ BIOL 491. — Research (total enrollment: 1)
  ▷ BIOL 611. — Molecular Biology of Differentiation and Development (total enrollment: 8)
  ▷ BIOL 691. — Research (total enrollment: 3)

• **RESEARCH PROJECTS DURING 2008**
  Federal
  ▷ Chromosome Counting Mechanisms in Sex Determination, National Institute of General Medical Sciences, coworkers: M. Sharvani (Technician), G. Mahesh (P), F. Avila (G), A. Gonzalez (G), E. Kozhina (G)

• **PRESENTATIONS DURING 2008**

• **PUBLICATIONS DURING 2008**
• ADDITIONAL UNIVERSITY TITLES HELD DURING 2008
  ▶ Assistant Professor (J), Molecular and Cellular Medicine, [2008]
  ▶ Member, Interdisciplinary Faculty, Genetics, [2003]
  ▶ Member, Interdisciplinary Faculty, Neuroscience, [2003]

• AWARDS DURING 2008
  National
  ▶ Howard Hughes Medical Institute Investigator, Howard Hughes Medical Institute

• SERVICE DURING 2008
  International
  ▶ Editorial/Board: Research Grants Council Hong Kong, China (Review: Proposals)
  National
  ▶ Ad Hoc Committee: Neuroendocrinology, Neuroimmunology and Behavior (Member)
  ▶ Editorial/Board: National Institutes of Health (Review: Proposals), National Science Foundation (Review: Proposals), Trends in Neuroscience, Developmental Biology, PloS-Genetics, Genetics (Referee: Journals)
  Department
  ▶ Event: Undergraduate Poster Competition (Organizer)
  ▶ Committee/Panel: Executive Committee for Genetics Program (Member), Graduate Programs Committee (Member), Head Search Committee (Member), Interface Diversity Committee (Member)

• TEACHING ASSIGNMENTS DURING 2008
  Spring
  ▶ BIOL 491 — Research (total enrollment: 1)
  ▶ BIOL 615 — Signaling Behavior & Development (total enrollment: 7)
  ▶ BIOL 691 — Research (total enrollment: 2)
  ▶ GENE 691 — Research (total enrollment: 1)
  Summer
  ▶ BIOL 491 — Research (total enrollment: 1)
  ▶ BIOL 691 — Research (total enrollment: 2)
  ▶ GENE 691 — Research (total enrollment: 1)
  Fall
  ▶ BIOL 111 — Introductory Biology I (total enrollment: 260)
• RESEARCH PROJECTS DURING 2008

Federal
▷ Genetic Regulation of Mating Behavior in C. Elegans Males, National Institutes of Health, coworkers: T. Gruninger (G), D. Gualberto (G), Y. Liu (G)

Private
▷ Environmental and Genetic Regulation of Motivated Behavior, Howard Hughes Medical Institute, coworkers: T. Gruninger (G), B. LeBoeuf (G), Y. Liu (G)

• PRESENTATIONS DURING 2008

▷ “Molecular and Cellular Medicine,” Texas A&M Health Science Center, College Station, TX, 2008. (Individual)
▷ “Molecular Cell and Developmental Biology,” University of Texas, Austin, TX, 2008. (Individual)

• PUBLICATIONS DURING 2008

• SERVICE DURING 2008

National
▷ Editorial/Board: National Institutes of Health (Review: Proposals), National Science Foundation (Review: Proposals), *J. Bacteriology, Molecular Microbiology, Microbiology, ISME* (Referee: Journals)

College
▷ Committee/Panel: Information Technology Committee (Member)

Department
▷ Committee/Panel: Ad Hoc LDIP Director Search Committee (Chair), Computer Committee (Member), Executive Committee (Appointed), Graduate Recruiting and Admissions Committee (Chair)

• TEACHING ASSIGNMENTS DURING 2008

Spring
▷ BIOL 351. — Fund of Microbiol (total enrollment: 37)
▷ BIOL 491. — Research (total enrollment: 1)
▷ BIOL 681. — Seminar (total enrollment: 5)
▷ MICR 691. — Research (total enrollment: 3)

Summer
▷ MICR 691. — Research (total enrollment: 3)

Fall
▷ MICR 691. — Research (total enrollment: 2)

*On leave.*
• SERVICE DURING 2008

International
▷ Editorial/Board: German-Israel Foundation (Review: Proposals)

National
▷ Service Position: Beckman Scholars Program (Mentor)
▷ Editorial/Board: National Science Foundation Plant Cyberinfrastructure (Review: Proposals), North Carolina Biotechnology Center Biotechnology Research Grant Program (Review: Proposals), Molecular Microbiology, PNAS, J. Biological Rhythms (Referee: Journals)
▷ Committee/Panel: American Academy of Microbiology Committee (Member), National Science Foundation Plant Cyberinfrastructure Collaborative (Member), Scientific Advisory Board, NIMH Silvio O. Conte Center for Neuroscience Research for a Project Entitled Chemical and Genetic Manipulation of Circadian Systems (Member)

University
▷ Event: Phi Kappa Phi Induction Ceremony (Speaker)
▷ Ad Hoc Committee: Distinguished Professor Committee (Chair)
▷ Committee/Panel: Distinguished Professor Promotion Committee (Member), Honorary Degree Committee (Member), Life Science Advisory Committee (Member), Quality Enhancement Plan Committee (Member), Selection Committee, The Association of Former Students Distinguished Teaching Awards (Member)

Department
▷ Event: Freshman Convocation (Speaker)

Interdisciplinary/Intercollegiate
▷ Committee/Panel: Chemistry Biology Interface Program (Member)

• TEACHING ASSIGNMENTS DURING 2008

Spring
▷ BIOL 491. — Research (total enrollment: 3)
▷ BIOL 691. — Research (total enrollment: 2)

Summer
▷ BIOL 491. — Research (total enrollment: 2)
▷ BIOL 691. — Research (total enrollment: 1)
▷ MICR 691. — Research (total enrollment: 1)

Fall
▷ BIOL 491. — Research (total enrollment: 1)
MICR 691. — Research (total enrollment: 2)

- PUBLICATIONS DURING 2008


On leave.
IRA F. GREENBAUM
PROFESSOR (979) 845-7791
BIOL-Evolutionary Biology ira@mail.bio.tamu.edu

• ADDITIONAL UNIVERSITY TITLES HELD DURING 2008
  ▷ Member, Interdisciplinary Faculty, Ecology and Evolutionary Biology, [2006]
  ▷ Member, Interdisciplinary Faculty, Genetics, [2006]

• SERVICE DURING 2008
  National
  ▷ Editorial/Board: National Science Foundation, Evol. Biol. (Review: Proposals), Cytogenetics and Genome Research (Referee: Journals)
  Department
  ▷ Committee/Panel: Lower Division Instruction (Director), Lower Division Instruction Advisory Committee (Chair)

• TEACHING ASSIGNMENTS DURING 2008
  Spring
  ▷ BIOL 466. — Principles of Evolution (total enrollment: 43)
  ▷ ZOOL 691. — Research (total enrollment: 9)
  Fall
  ▷ BIOL 697. — Methods in Teaching Biology Laboratory (total enrollment: 18)
• ADDITIONAL UNIVERSITY TITLES HELD DURING 2008
  ▷ Member, Interdisciplinary Faculty, Molecular and Environmental Plant Sciences, [2006]

• SERVICE DURING 2008

  National
  ▷ Editorial/Board: National Science Foundation (Review: Proposals), In Vitro (Member), Journal of Microscopy (Referee: Journals)
  ▷ Committee/Panel: Cholorfilms Planning and Judging Panel, You-Tube Contest Funded by the American Society of Plant Biologists (Recruiting), Education Committee, American Society of Plant Biologists (Member), Revision of the First Chapter, Plant Cells (Recruiting), Steering Committee, Planting Science Program for K-16 Education Outreach, Botanical Society of America and American Society of Plant Biologists (Member)

  University
  ▷ Committee/Panel: Undergraduate Journal, Explorations (Member)

  College
  ▷ Committee/Panel: Technology-Mediated Instruction Committee (Member)

• TEACHING ASSIGNMENTS DURING 2008

  Spring
  ▷ BIOL 430. — Biological Imaging (total enrollment: 45)
  ▷ BIOL 491. — Research (total enrollment: 3)

  Summer
  ▷ BIOL 491. — Research (total enrollment: 34)

  Fall
  ▷ BIOL 112. — Introductory Biology II (total enrollment: 85)
  ▷ BIOL 491. — Research (total enrollment: 2)

• PRESENTATIONS DURING 2008

  ▷ “Endoplasmic Reticulum Changes in Form and Movement,” Oxford Brookes University, Oxford, United Kingdom, June, 2008.( Invited)
  ▷ “Endoplasmic Reticulum Changes in Form and Movement,” University of Warwick, Warwick, United Kingdom, June, 2008.( Invited)
  ▷ “Cell Cycle Changes in Nuclear Channel Formation in Plants,” American Society of Plant Biologists Meeting, Merida, Mexico, July, 2008.(Poster Individual)
  ▷ “PlantingScience.org,” American Society of Plant Biologists Meeting, Merida, Mexico, July, 2008.(Poster Individual)
• PUBLICATIONS DURING 2008
TIMOTHY C. HALL

DISTINGUISHED PROFESSOR
BIOL-Biotechnology, Botany, Cell Biology

(979) 845-7728  tim@idmb.tamu.edu

• ADDITIONAL UNIVERSITY TITLES HELD DURING 2008
  ▶ Member, Interdisciplinary Faculty, Molecular and Environmental Plant Sciences, [2006]
  ▶ Member, Interdisciplinary Faculty, Biotechnology, [2006]
  ▶ Member, Interdisciplinary Faculty, Genetics, [2006]
  ▶ Director, Rice Biotechnology Laboratory (part of IDMB), Biology, ]/
  ▶ Director, Gene Technologies Laboratory (part of IDMB), Biology, ]/
  ▶ Director, Institute of Developmental and Molecular Biology (IDMB), Biology, ]/

• SERVICE DURING 2008
  
  International
  ▶ Event: Expanding Research Collaborations for Crop Improvement, Beijing, China (Co-Organizer)
  ▶ Editorial/Board: External Examiner - NEWCASTLE University of Australia (Reviewed),
    University Grants Committee, Hong Kong (Review: Proposals)
  ▶ Committee/Panel: Advisory Committee, Area of Excellence Award, Chinese University
    of Hong Kong (Member), Scientific Advisory Committee to the Area of Excellence Award
    in Plant and Fungal Biotechnology (Member)
  
  National
  ▶ Editorial/Board: BioMed, J. Experimental Botany Guo Embryo & Pollen, J. Plant Phys,
    Nucleic Acids Research Kim, Plant Cell, PCP KIM, Plant Cell Reports, Plant Journal
    TPJ-tEE, Plant Molecular Biology, Physiology/Biology PLANTPHYSIOL (Referee: Journals)
  
  State
  ▶ Committee/Panel: Academic Committee, State Key Lab for Plant Molecular Biology,
    CUHK (Member)
  
  University
  ▶ Editorial/Board: Biochemistry Research Competition (Judge)
  ▶ Committee/Panel: Distinguished Professors Executive Committee (Member)
  
  Department
  ▶ Committee/Panel: Gene Technologies Committee (Chair), Plant Care Committee (Chair),
    Tenure and Promotion Committee (Member)

• TEACHING ASSIGNMENTS DURING 2008
  
  Spring
  ▶ BIOL 485 — Directed Studies (total enrollment: 1)
  ▶ BIOL 491. — Research (total enrollment: 1)
BIOL 681 — Seminar (total enrollment: 6)
BIOL 691. — Research (total enrollment: 3)

Summer
BIOL 485 — Directed Studies (total enrollment: 3)
BIOL 685 — Directed Studies (total enrollment: 3)
BIOL 691. — Research (total enrollment: 5)

Fall
BIOL 101. — Botany (total enrollment: 216)
BIOL 681 — Seminar (total enrollment: 4)
BIOL 691. — Research (total enrollment: 5)
BOTN 101 — Botany (total enrollment: 4)

• RESEARCH PROJECTS DURING 2008
Federal
(REN) Chromatin Potentiation and ABA Activation of Phaseolin Transcripts, National Science Foundation, coworkers: R. Pettway (Research Associate), W. Ng (P), X. Shi (G), A. Crawley (U), D. Grunspan (U), L. Lozano (U), T. Markham (U), C. Martin (U), B. Praslicka (U), D. Verkhoturov (U)

• PRESENTATIONS DURING 2008
“Plant Mol Bio; Epigenetics,” Mahidol University, Bangkok, Thailand, 2008. (Invited)
“Genetic and Epigenetic Regulation of Expression from the Phaseolin Promoter,” Canto-blancow Workshops, Madrid, Spain, July, 2008. (Invited)
“Genetic and Epigenetic Regulation of Expression from the Phaseolin Promoter,” University of Texas, Austin, TX, October, 2008. (Invited)

• PUBLICATIONS DURING 2008


• **CHAIRS/PROFESSORSHIPS**
  ▶ John W. Lyons ’59 Endowed Chair in Biology [2005]

• **ADDITIONAL UNIVERSITY TITLES HELD DURING 2008**
  ▶ Director, Center for Biological Clocks Research, Biology, [2006]

• **SERVICE DURING 2008**
  **International**
  ▶ Committee/Panel: Society for Research on Biological Rhythms Executive Committee (Member)

  **National**
  ▶ Event: Society for Research on Biological Rhythms (Elected Treasurer)

  **University**
  ▶ Committee/Panel: 1st Year Genetics Graduate Student Advising Committee (Member), ILSB Scientific Leaders Committee (Member), Materials Characterization Facility Advisory Committee (Member)

  **Department**
  ▶ Committee/Panel: Annual Review Committee (Chair), Executive Committee (Member), Graduate Program Committee (Chair), Search Committee for Department Head (Member)

• **TEACHING ASSIGNMENTS DURING 2008**
  **Spring**
  ▶ BICH 691. — **Research** (total enrollment: 2)
  ▶ BIOL 491. — **Research** (total enrollment: 1)
  ▶ BIOL 681. — **Seminar** (total enrollment: 7)
  ▶ BIOL 682. — **Research Seminar** (total enrollment: 14)
  ▶ BIOL 691. — **Research** (total enrollment: 2)
  ▶ GENE 691. — **Research** (total enrollment: 1)

  **Summer**
  ▶ BIOL 491. — **Research** (total enrollment: 1)
• RESEARCH PROJECTS DURING 2008

Federal

▷ Circadian Regulatory Circuits in Drosophila, National Institutes of Health, coworkers: G. Mahesh (P), F. Ng (P), W. Yu (P), J. Benito (G), J. Houl (G), Y. Liu (U), P. Taylor (U)
▷ Regulation of Circadian Transcription, National Institutes of Health, coworkers: Y. Liu (P), W. Yu (P), J. Houl (G), X. Tao (G), P. Taylor (G)

• PRESENTATIONS DURING 2008

▷ “A Brief History of Clocks Outside the Brain,” Brandeis Neurogenetics Celebration, Waltham, MA, June, 2008. (Invited)
▷ “Cellular and Molecular Regulation of Chemosensory Rhythms,” 31st Annual Meeting of the Japan Neuroscience Society, Tokyo, Japan, July, 2008. (Invited)
▷ “Regulation of Transcriptional Feedback within the Drosophila Circadian Clock,” University of Tokyo, Department of Biophysics and Biochemistry, Tokyo, Japan, July, 2008. (Invited)

• PUBLICATIONS DURING 2008

Current Biology, vol. 18, 803-807.


• ADDITIONAL UNIVERSITY TITLES HELD DURING 2008
  ▶ Member, Interdisciplinary Faculty, Texas A&M University System Health Science Center, [2005]
  ▶ Director, Materials Characterization Facility, Biology, [2005]
  ▶ Member, Interdisciplinary Faculty, Materials Science and Engineering, [2002]
  ▶ Professor (J), Biochemistry and Biophysics, [2001]
  ▶ Director, Microscopy and Imaging Center, Health Services and Health Center, [2000]

• SERVICE DURING 2008

  International
  ▶ Advisory Board: Subcellular Biochemistry International Advisory Board (Member)
  ▶ Editorial/Board: ”Micron”, International Research and Review Journal for Microscopy (Member)

  National
  ▶ Committee/Panel: Education Committee of the Microscopy Society of America (Member)

  State
  ▶ Professional Affiliation: Texas Chapter of the Alexander von Humboldt Association of America (President)
  ▶ Committee/Panel: Annual Meeting and Symposium (Kolleg) Texas Chapter of the Alexander von Humboldt Association of America Organization Committee (Member)

  University
  ▶ Committee/Panel: Environmental Management Committee (Member), Life Sciences Building Committee (Member), SANS User Committee (Member), University Research Council (Member)

  Department
  ▶ Committee/Panel: Materials Science and Engineering Admission Committee (Member), ORP Evaluation Committee (Member)

  Interdisciplinary/Intercollegiate
  ▶ Committee/Panel: MIC Electron Microscopy Advisory Committee (Member), MIC Light Microscopy Advisory Committee (Member)

• TEACHING ASSIGNMENTS DURING 2008
Spring
▷ BICH 691 — Research (total enrollment: 1)
▷ BIOL 604. — Fundamental SEM/ESEM (total enrollment: 14)
▷ BIOL 608 — Light Microscopy (total enrollment: 6)
▷ BIOL 685. — Directed Studies (total enrollment: 1)
▷ BIOL 691. — Research (total enrollment: 1)

Summer
▷ BICH 691 — Research (total enrollment: 1)
▷ BIOL 603. — Advanced TEM (total enrollment: 10)
▷ BIOL 691. — Research (total enrollment: 1)

Fall
▷ BICH 691. — Research (total enrollment: 1)
▷ BIOL 602. — Transmission Electron Microscopy (total enrollment: 12)
▷ BIOL 691. — Research (total enrollment: 1)

• RESEARCH PROJECTS DURING 2008

Federal
▷ Graduate Training in Molecular Biophysics, National Institutes of Health
▷ Acquisition of a Combined Raman and Infrared Microscope With Nano-Scale Spatial Resolution, National Science Foundation
▷ (REN) Phages of Agronomic Bacteria: A Student Based Genomics Approach, National Science Foundation
▷ REU Site: Nanotechnology and Materials Systems, National Science Foundation

• PRESENTATIONS DURING 2008
▷ “Center for Infection Biology and Immunity Joint Colloquium Series,” Max-Planck-Institute for Infection Biology, Charit University Medicine and Humboldt University, Berlin, Germany, May, 2008.( Invited)
▷ “Federal Programs for Funding Instrumentation,” OPD, Texas A&M University, College Station, TX, September, 2008.( Invited)
▷ Annual Meeting of the Texas Chapter of the Alexander von Humboldt Association of America (AvHAA), Round Top, TX, November, 2008.( Individual)

• PUBLICATIONS DURING 2008


• SERVICE DURING 2008

College
▷ Event: Science Olympiad Coaches Clinic (Presenter), Texas Junior Science & Humanities Symposium (Judge), Texas Science Olympiad (Coordinator)

Department
▷ Service Position: Laboratory Experience for Summer Honors Invitational Program (Presenter)
▷ Event: TA Workshop Sessions, Developing Good Exams and Writing Good Test Questions (Presenter)

• TEACHING ASSIGNMENTS DURING 2008

Spring
▷ BIOL 113. — Introductory Biology (total enrollment: 142)

Fall
▷ BIOL 113. — Introductory Biology (total enrollment: 253)
ADAM G. JONES

ASSISTANT PROFESSOR (979) 845-7774
BIOL-Evolutionary Biology ajones@mail.bio.tamu.edu

- **ADDITIONAL UNIVERSITY TITLES HELD DURING 2008**
  - Member, Interdisciplinary Faculty, Ecology and Evolutionary Biology, [2006]

- **SERVICE DURING 2008**
  - National
  - Department
    - Committee/Panel: Graduate Recruiting Committee (Member)

- **TEACHING ASSIGNMENTS DURING 2008**
  - **Spring**
    - BIOL 214. — *Genes, Ecology and Evolution* (total enrollment: 100)
    - BIOL 491. — *Research* (total enrollment: 2)
    - BIOL 681. — *Seminar* (total enrollment: 11)
    - BIOL 689. — *Special Topics in* (total enrollment: 9)
    - BIOL 691. — *Research* (total enrollment: 4)
  - **Summer**
    - BIOL 466. — *Principles of Evolution* (total enrollment: 22)
    - BIOL 491. — *Research* (total enrollment: 7)
    - BIOL 691. — *Research* (total enrollment: 4)
  - **Fall**
    - BIOL 491(H) — *Research* (total enrollment: 1)
    - BIOL 491. — *Research* (total enrollment: 4)
    - BIOL 681. — *Seminar* (total enrollment: 10)
    - BIOL 691. — *Research* (total enrollment: 4)

- **RESEARCH PROJECTS DURING 2008**
  - Federal
    - A Simulation Approach to the Evolution of the G-Matrix, *National Science Foundation*, coworkers: M. Arian (U), S. Arnold (U), R. Burger (U)
University
▷ The Effect of Non-Point Source Pollution on Gulf Pipefish Populations in and Around Weeks Bay Reserve, Department of Chemistry, coworkers: C. Partridge (U)

• PRESENTATIONS DURING 2008
▷ “Sexual Selection, Mating Patterns, and Gamete Competition in Seahorses and Pipefishes,” Baylor University, Waco, TX, April, 2008. (Invited)

• PUBLICATIONS DURING 2008
• SERVICE DURING 2008

National
▷ Service Position: George Mitchell - Fund Raising for the Magellan Telescope from the Emir of the State of Qatar (Consultant)
▷ Professional Affiliation: Northern Arizona University - Research Administration and Compliance (Consultant), Rochester Institute of Technology - General Academic Administration and Issues Related to Expanding Institutional Research (Consultant), Southern Methodist University - Establishing Academic Research Administration (Consultant), Tarleton State University - Issues Related to Campus Expansion (Consultant), Texas A&M University - Texarkana - General Academic Administration and Issues Related to Developing a Comprehensive University (Consultant)

• TEACHING ASSIGNMENTS DURING 2008

Fall
▷ BIOL 111. — Introductory Biology I (total enrollment: 166)
• SERVICE DURING 2008

International
▷ Editorial/Board: *International Journal of Developmental Biology* (Referee: Journals)

National

College
▷ Committee/Panel: Faculty Advisory Council (Representative-at-large)

Department
▷ Committee/Panel: Executive Committee (Member), Graduate Recruiting and Admissions Committee (Chair), Light Microscopy Advisory Committee (Member), Lower Division Advisory Committee (Member)

• TEACHING ASSIGNMENTS DURING 2008

Spring
▷ BIOL 291. — Research (total enrollment: 1)
▷ BIOL 491. — Research (total enrollment: 3)
▷ BIOL 615. — *Signaling Behavior & Development* (total enrollment: 6)
▷ BIOL 681. — Seminar (total enrollment: 6)
▷ BIOL 691. — Research (total enrollment: 4)

Summer
▷ BIOL 491. — Research (total enrollment: 1)
▷ BIOL 691. — Research (total enrollment: 4)

Fall
▷ BIOL 111. — *Introductory Biology I* (total enrollment: 284)
▷ BIOL 491. — Research (total enrollment: 2)
▷ BIOL 681. — Seminar (total enrollment: 20)
▷ BIOL 691. — Research (total enrollment: 3)

• RESEARCH PROJECTS DURING 2008

Federal
▷ Role of WNT Signaling in Vertebrate Embryonic Pattering, *National Science Foundation*, coworkers: K. Baker (G), C. Kelton (G), A. Narayanan (G), A. Butler (U), J. Lee (U), M. Lee (U), C. Lilie (U)
Private

- WNT Regulation of Vertebrate Mesoderm Differentiation, *American Cancer Society*, coworkers: K. Baker (G), C. Kelton (G), A. Narayana (G), A. Butler (U), J. Lee (U), C. Lilie (U)

**PRESENTATIONS DURING 2008**

- “Cell Signaling and Vertebrate Axis Patterning, or How the Zebrafish Gets a Head,” Texas A&M University, Department of Biomedical Engineering, College Station, TX, September, 2008. (Invited)
- “Transcriptional Regulation of Mesoderm and Neural Plate Patterning,” Symposium on Vertebrate Development and Organogenesis, University of Texas MD Anderson Cancer Center, Houston, TX, November, 2008. (Invited)

**PUBLICATIONS DURING 2008**

• SERVICE DURING 2008

National
▷ Editorial/Board: The Maryland Technology Transfer Fund (Review: Proposals), Applied and Environmental Microbiology, Eukaryotic Cell, Fungal Genetics and Biology, Microbiology, PLoS ONE (Referee: Journals)
▷ Committee/Panel: PLoS ONE (Advisory Board)

• TEACHING ASSIGNMENTS DURING 2008

Summer
▷ BIOL 491. — Research (total enrollment: 1)

• PRESENTATIONS DURING 2008

▷ “Introduction to Medical Mycology,” Plant Pathology and Microbiology Department, Texas A&M University, College Station, TX, February, 2008. (Invited)
▷ “Discover the Virulence Genes in the Human Fungal Pathogens Cryptococcus Neoformans and Aspergillus Fumigatus,” PBoFF Meeting, Texas A&M University, College Station, TX, December, 2008. (Individual)

• PUBLICATIONS DURING 2008


Hired 01/01/2008.
• SERVICE DURING 2008

National
▷ Editorial/Board: Developmental Biology (Review: Proposals)

University
▷ Committee/Panel: Faculty Senate (Faculty Senator - 08), Personnel and Welfare Committee (Member)

Department
▷ Committee/Panel: Retreat 2008 Organizing Committee (Co-Chair)

• TEACHING ASSIGNMENTS DURING 2008

Spring
▷ BIOL 112. — Introductory Biology II (total enrollment: 241)
▷ BIOL 285. — Directed Studies (total enrollment: 4)
▷ BIOL 685. — Directed Studies (total enrollment: 1)

Summer
▷ BIOL 112. — Introductory Biology II (total enrollment: 36)
▷ BIOL 691. — Research (total enrollment: 1)

Fall
▷ BIOL 112. — Introductory Biology II (total enrollment: 82)
▷ BIOL 285 — Directed Studies (total enrollment: 19)
▷ BIOL 691. — Research (total enrollment: 1)

• RESEARCH PROJECTS DURING 2008

Federal
▷ Elucidating the Genetic and Neural Basis of a C. elegans Male Motor Behavior Using Stimulatory and Inhibitory Light-Activated Channels, National Science Foundation, coworkers: P. Koo (G), F. Pirlepesov (G), M. Bunkers (U)

• PUBLICATIONS DURING 2008

THIERRY LINTS
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• SERVICE DURING 2008
  
  Department
  ▶ Event: Seminar Series (Organizer)

• TEACHING ASSIGNMENTS DURING 2008

  Spring
  ▶ BIOL 291. — Research (total enrollment: 2)
  ▶ BIOL 491. — Research (total enrollment: 2)
  ▶ BIOL 628 — Principles of Neuroscience II (total enrollment: 7)
  ▶ BIOL 691. — Research (total enrollment: 3)

  Summer
  ▶ BIOL 491. — Research (total enrollment: 4)
  ▶ BIOL 685. — Directed Studies (total enrollment: 1)
  ▶ BIOL 691. — Research (total enrollment: 1)

  Fall
  ▶ BIOL 291. — Research (total enrollment: 1)
  ▶ BIOL 491. — Research (total enrollment: 4)
  ▶ BIOL 627 — Principles of Neuroscience I (total enrollment: 6)
  ▶ BIOL 691. — Research (total enrollment: 1)

• PRESENTATIONS DURING 2008

  ▶ “Behavioral and Molecular Mechanisms of the Vocal Learning Process,” Department of Biology, Harding University, Searcy, AR, November, 2008. (Individual)
• ADDITIONAL UNIVERSITY TITLES HELD DURING 2008
  ▶ Member, Interdisciplinary Faculty, Reproductive Biology, [2006]
  ▶ Director, BioAquatics Facility, Biology, []

• SERVICE DURING 2008

  National
  ▶ Editorial/Board: Supplemental Sciatic Nerve Physiology Exercise (Author), *General and Comparative Endocrinology* (Referee: Journals)

  University
  ▶ Event: Student Research Week (Poster Judge/Event Coordinator)
  ▶ Committee/Panel: CPR WALS Project (Participant), IACUC Executive Committee (Member), IACUC Subcommittee (Chair), Radiological Safety Committee (Member)

  Department
  ▶ Research Group: Biology BioAquatics Facility (Director)
  ▶ Service Position: Zoological Society (Advisor)
  ▶ Committee/Panel: Animal Care Committee (Chair), Executive Committee (Member), Teaching Laboratory Safety Committee (Chair), Undergraduate Programs Committee (Chair)

  Interdisciplinary/Intercollegiate
  ▶ Committee/Panel: Graduate Degree Program in Marine Biology (Co-Chair)

• TEACHING ASSIGNMENTS DURING 2008

  Spring
  ▶ BIOL 388 — Principles of Animal Physiology (total enrollment: 44)
  ▶ BIOL 491. — Research (total enrollment: 2)
  ▶ ZOOL 691. — Research (total enrollment: 2)

  Summer
  ▶ BIOL 319. — Integrated Hum AN/PHY I (total enrollment: 129)
  ▶ BIOL 491. — Research (total enrollment: 1)
  ▶ ZOOL 691. — Research (total enrollment: 2)

  Fall
  ▶ BIOL 405 — Comparative Endocrinology (total enrollment: 29)
  ▶ BIOL 481. — Seminar in Biology (total enrollment: 10)
  ▶ BIOL 491. — Research (total enrollment: 2)
  ▶ ZOOL 691. — Research (total enrollment: 2)
• RESEARCH PROJECTS DURING 2008
  
  International
  
  ▶ Arginine and Glutamine Metabolism in Cultured Fish: Growth, Biosynthesis and Homeostasis, *Consejo Nacional de Ciencia y Tecnología*—(CONACYT), coworkers: A. Buentello (P), D. Gatlin (P), D. Ramirez (P)

• PRESENTATIONS DURING 2008
  
  ▶ “Distinct Patterns of Expression of Pituitary Glycoprotein Hormone Subunit Alpha and Thyrotropin Subunit Beta in Juvenile Red Drum (Sciaenops Ocellatus),” Tribute to Dick Peter Satellite Symposium at 6th International Conference on Fish Endocrinology, Calgary, Alberta, Canada, June, 2008. (Invited)
• ADDITIONAL UNIVERSITY TITLES HELD DURING 2008
  ▷ Member, Interdisciplinary Faculty, Genetics, [2006]

• SERVICE DURING 2008
  National
  ▷ Event: Wakonse Michigan 2008 Teaching Development Conference (Participant)
  ▷ Editorial/Board: PLoS One, Genetics (Referee: Journals)
  ▷ Committee/Panel: Genetics/Genomic Journal Club (Member)

  University
  ▷ Service Position: ATMentors (Member)
  ▷ Committee/Panel: Council of Principal Investigators (Member)

  Department
  ▷ Committee/Panel: Chromosome Biology Supergroup (Member), Seminars Committee (Member)

• TEACHING ASSIGNMENTS DURING 2008
  Spring
  ▷ BICH 691. — Research (total enrollment: 2)
  ▷ BIOL 491. — Research (total enrollment: 1)
  ▷ BIOL 691. — Research (total enrollment: 1)

  Summer
  ▷ BICH 691 — Research (total enrollment: 2)
  ▷ BIOL 691. — Research (total enrollment: 1)

  Fall
  ▷ BICH 691. — Research (total enrollment: 2)
  ▷ BIOL 213. — Molecular Cell Biology (total enrollment: 61)
  ▷ BIOL 691. — Research (total enrollment: 1)

• RESEARCH PROJECTS DURING 2008
  Federal
  ▷ DNA Methylation in Drosophila, National Institutes of Health, coworkers: D. Welch (Technician), P. Guerrero (G), C. Alfonso (U), P. Leal (U), S. Paredes (U)

  Private
  ▷ Targets of Cytosine Methylation in Drosophila, March of Dimes - Birth Defects Foundation
- PUBLICATIONS DURING 2008
• SERVICE DURING 2008

National
  ▶ Editorial/Board: *Plant Systematics* (Referee: Journals)

College
  ▶ Committee/Panel: Grievance Committee (Elected Member)

Department
  ▶ Committee/Panel: IEEF, Undergraduate Program Committee (Member)

• TEACHING ASSIGNMENTS DURING 2008

Spring
  ▶ BIOL 214. — *Genes, Ecology and Evolution* (total enrollment: 128)
  ▶ BIOL 491. — *Research* (total enrollment: 1)
  ▶ BOTN 691. — *Research* (total enrollment: 2)

Summer
  ▶ BOTN 691. — *Research* (total enrollment: 1)

Fall
  ▶ BIOL 214. — *Genes, Ecology and Evolution* (total enrollment: 75)
  ▶ BIOL 491. — *Research* (total enrollment: 1)
  ▶ BOTN 691. — *Research* (total enrollment: 1)

• RESEARCH PROJECTS DURING 2008

Federal

• PUBLICATIONS DURING 2008


• SERVICE DURING 2008

National
▷ Editorial/Board: Journal of Bacteriology (Advisory Board), *Journal of Bacteriology, Molecular Microbiology, Biophysical Journal, Proceedings of the National Academy of Sciences* (Referee: Journals), *Journal of Molecular Biology* (Referee: Journals)

College
▷ Committee/Panel: Diversity Committee (Member)

• TEACHING ASSIGNMENTS DURING 2008

Spring
▷ BICH 691. — Research (total enrollment: 2)
▷ BIOL 112. — *Introductory Biology II* (total enrollment: 96)
▷ BIOL 291. — Research (total enrollment: 2)
▷ BIOL 406. — *Bacterial Genetics* (total enrollment: 22)
▷ BIOL 491. — Research (total enrollment: 5)
▷ GENE 406. — *Bacterial Genetics* (total enrollment: 16)

Summer
▷ BICH 691. — Research (total enrollment: 3)
▷ BIOL 351. — *Fund of Microbiol* (total enrollment: 32)
▷ BIOL 491. — Research (total enrollment: 1)

Fall
▷ BICH 691. — Research (total enrollment: 3)
▷ BIOL 111. — *Introductory Biology I* (total enrollment: 93)
▷ BIOL 438 — *Bacterial Physiology* (total enrollment: 41)
▷ BIOL 491. — Research (total enrollment: 7)

• PRESENTATIONS DURING 2008
▷ “It’s Only a Matter of Angstroms,” Biology Department Seminar, University of Indiana, Bloomington, IN, February, 2008. (Individual)

• PUBLICATIONS DURING 2008
▷ Lai, R.Z.; Bormans, A.F.; Draheim, R.R.; Wright, G.A.; Manson, M.D. (2008) The Region Preceding the C-terminal NWETF Pentapeptide Modulates Baseline Activity and
Aspartate Inhibition of Escherichia Coli Tar *Biochemistry*, vol. 47, 13287-13295.

• ADDITIONAL UNIVERSITY TITLES HELD DURING 2008
  ◦ Acting Department Head, Biology, [2008]
  ◦ Member, Interdisciplinary Faculty, Molecular and Environmental Plant Sciences, [2006]
  ◦ Member, Interdisciplinary Faculty, Genetics, [2006]
  ◦ Associate Department Head, Biology, [2003]

• SERVICE DURING 2008
  National
  ◦ Editorial/Board: National Science Foundation, USDA (Review: Proposals), *Plant Cell*,
    *Plant Journal*, *FEBS Letters*, *Journal of Biological Chemistry* (Referee: Journals)
  Regional
  ◦ Event: 4th grade classes at South Knoll Elementary School and to 3rd grade class at
    Forrest Ridge (Speaker)
  University
  ◦ Committee/Panel: Gene Technologies Laboratory User’s Committee (Member)
  College
  ◦ Committee/Panel: College Quality Enhancement Plan Council (Member), Executive
    Committee (Member), Research Advisory Committee (Member), Teaching Lab Safety
    Committee (Member)
  Department
  ◦ Committee/Panel: Annual Review Committee (Chair), Executive Committee (Ap-
    pointed), Undergraduate Curriculum Committee (Member)

• TEACHING ASSIGNMENTS DURING 2008
  Spring
  ◦ BIOL 291. — Research (total enrollment: 1)
  ◦ BIOL 481. — Seminar in Biology (total enrollment: 20)
  ◦ BIOL 484. — Internship (total enrollment: 3)
  ◦ BIOL 491. — Research (total enrollment: 11)
  ◦ BIOL 685. — Directed Studies (total enrollment: 4)
  ◦ BIOL 691. — Research (total enrollment: 2)
  Summer
  ◦ BIOL 484. — Internship (total enrollment: 4)
  ◦ BIOL 491. — Research (total enrollment: 5)
  ◦ BIOL 691. — Research (total enrollment: 2)
Fall
▷ BIOL 291. — Research (total enrollment: 2)
▷ BIOL 484. — Internship (total enrollment: 1)
▷ BIOL 491(H) — Research (total enrollment: 1)
▷ BIOL 491. — Research (total enrollment: 12)
▷ BIOL 681. — Seminar (total enrollment: 8)
▷ BIOL 691. — Research (total enrollment: 3)

* RESEARCH PROJECTS DURING 2008

  Federal
  ▷ UBM Integrated Undergraduate Research Experiences in Biological and Mathematical Sciences, National Science Foundation

* PRESENTATIONS DURING 2008
  ▷ “Regulation of Telomerase Activity and Hormone Responses in Arabidopsis by the BT2 Ubiquitin Ligase,” Plant Sciences Department, University of Tennessee, Knoxville, TN, November, 2008.( Individual)
• ADDITIONAL UNIVERSITY TITLES HELD DURING 2008
  ▶ Department Head, Biology, /2008/

• SERVICE DURING 2008

  University
  ▶ Committee/Panel: CMD Director Search Committee (Member)

  College
  ▶ Committee/Panel: Executive Committee (Member)

*Hired 12/01/2008.*
• SERVICE DURING 2008

National
▷ Professional Affiliation: American Society for Microbiology (Member), Society for Applied Microbiology (Member)
▷ Editorial/Board: *Journal of Microbiology Education* (Editorial Advisory Board)

University
▷ Service Position: ATMentors (Member), Microbiology Society (Advisor), Omega Phi Alpha Service Sorority (Advisor)
▷ Committee/Panel: IEEF Committee (Member), Senate Subcommittee for Lecturers (Member), University Appeals Committee (Member), Women’s Faculty Network (Member)

College
▷ Event: Science Olympiad (Coordinator)

Department
▷ Service Position: Graduate Teaching Academy Mentor Program (Mentor)
▷ Committee/Panel: Biology Safety Committee (Member), Undergraduate Programs Committee (Member)

• TEACHING ASSIGNMENTS DURING 2008

Spring
▷ BIOL 454 — Immunology (total enrollment: 97)
▷ BIOL 455 — Laboratory in Immunology (total enrollment: 26)
▷ BIOL 491. — Research (total enrollment: 3)

Summer
▷ BIOL 352 — Diagnostic Bacteriology (total enrollment: 28)
▷ BIOL 491. — Research (total enrollment: 2)

Fall
▷ BIOL 206. — Introductory Microbiology (total enrollment: 67)
▷ BIOL 456. — Medical Microbiology (total enrollment: 52)
▷ BIOL 491. — Research (total enrollment: 3)
▷ BIOL 691. — Research (total enrollment: 1)

• PRESENTATIONS DURING 2008
▷ “Microbial Loads in Whirlpool Tubs,” Texas A&M University Retirees Club, College Station, TX, May, 2008. (Individual)
• **ADDITIONAL UNIVERSITY TITLES HELD DURING 2008**
  ▶ Member, Interdisciplinary Faculty, Molecular and Environmental Plant Sciences, [2006]
  ▶ Member, Interdisciplinary Faculty, Biotechnology, [2006]

• **SERVICE DURING 2008**

  National
  ▶ Event: Siemens-Westinghouse Science Talent Search Competition (Judge)
  ▶ Advisory Board: National Advisory Board for the College-Level Examination Program (Chair)

  State
  ▶ Editorial/Board: *Texas Journal of Science* (Referee: Journals)
  ▶ Committee/Panel: Vertical Team Committee for Success in College Initiative, Science Committee (Chair)

  University
  ▶ Committee/Panel: University Council on Teacher Education (Member)

  College
  ▶ Event: AP Biology Teachers’ Workshop (Presenter)
  ▶ Ad Hoc Committee: Advisory Council/Steering Committee - Center for Math and Science Education (Member)
  ▶ Committee/Panel: College Quality Enhancement Plan Council (Member)

  Department
  ▶ Committee/Panel: Search Committee for Head (Member)

• **TEACHING ASSIGNMENTS DURING 2008**

  Spring
  ▶ BIOL 351. — Fund of Microbiol (total enrollment: 120)
  ▶ BIOL 491. — Research (total enrollment: 2)

  Summer
  ▶ BIOL 491. — Research (total enrollment: 1)

  Fall
  ▶ BIOL 351. — Fund of Microbiol (total enrollment: 167)
  ▶ BIOL 491. — Research (total enrollment: 4)

• **RESEARCH PROJECTS DURING 2008**

  Private
• Techniques to Improve Efficiencies of Coal Fired Industrial Plants, *Harizan Farms*, coworkers: C. Lyman (U), R. Lyman (U), A. Williams (U), H. Yalamanchili (U)

• PUBLICATIONS DURING 2008
  
  
ALAN E. PEPPER

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BIOL-Biotechnology, Botany alan-e-pepper@tamu.edu

• ADDITIONAL UNIVERSITY TITLES HELD DURING 2008
  ▷ Member, Interdisciplinary Faculty, Molecular and Environmental Plant Sciences, [2006]
  ▷ Member, Interdisciplinary Faculty, Biotechnology, [2006]
  ▷ Member, Interdisciplinary Faculty, Genetics, [2006]

• SERVICE DURING 2008

  National
  ▷ Editorial/Board: USDA-ARS, NSF, BARD (Review: Proposals), Genetics and Molecular Biology, Oecologia, Plant Molecular Biology, Plant Physiology, Plant Cell, PLoS ONE (Referee: Journals)
  ▷ Committee/Panel: Navasota Ladies’ Tresses (Spiranthes Parksii) Endangered Species Recovery Team, U.S. Fish and Wildlife Service (Member)

  State
  ▷ Committee/Panel: Working Group, Texas State Parks and Wildlife Department Phlox Texansis (Member), Working Group, Texas State Parks and Wildlife Department Streptanthus Bracteatus (Member)

  University
  ▷ Committee/Panel: Graduate Advising Committee (Member), Laboratory for Crop Transformation Advisory Committee (Member), Laboratory for Plant Genome Technologies Advisory Committee (Member)

  Department
  ▷ Committee/Panel: Annual Review and Awards Committee (Member), Lower Division Advisory Committee (Member)

  Interdisciplinary/Intercollegiate
  ▷ Committee/Panel: Faculty of Molecular and Environment Plant Sciences Executive Committee (Member), Gene Technologies Laboratory Advisory Committee (Member)

• TEACHING ASSIGNMENTS DURING 2008

  Spring
  ▷ BIOL 691. — Research (total enrollment: 2)
  ▷ BOTN 635. — Plant Molecular Biology (total enrollment: 14)
  ▷ GENE 691. — Research (total enrollment: 1)
  ▷ MEPS 691. — Research (total enrollment: 1)

  Summer
  ▷ BIOL 491. — Research (total enrollment: 1)
  ▷ BIOL 691. — Research (total enrollment: 3)
• RESEARCH PROJECTS DURING 2008

Federal

▷ Genetics of Serpentine Adaption and Endemism, National Science Foundation, coworkers: M. Burrell (G), N. Jones (U), R. Mayweather (U), R. Williams (U)
▷ Investigation of Population Genetics of Arundo Donax and Insect Herbivores in Support of the Biological Control Program, U.S. Department of Agriculture

State

▷ Assessment of the Genetic Status of the Bracted Twistflower, Streptanthus Bracteatus (Brassicaceae), an Imperiled Geoendemic Species of the Balcones Canyonlands, Texas Parks and Wildlife, coworkers: R. Williams (U)
▷ Population Structure and Habitat Requirements of the Bracted Twistflower, Streptanthus Bracteatus (Crassicaceae), a Rare Plant, Texas Parks and Wildlife

Industrial

▷ Transitioning to True Molecular Breeding in Cotton: Whole-Genome Association Mapping to Identify Markers for Photoperiodic Flowering in Gossypium hirsutum L., Cotton Incorporated, coworkers: C. Logan (P), C. Lyle (U)

• PRESENTATIONS DURING 2008

▷ “Exploring Geoendemic Plants of Texas,” Keynote Speaker, Joint Symposium of the Native Plant Society of Texas (NPSOT) and Louisiana Native Plant Society (LNPS), Jasper, TX, October, 2008. (Invited)
▷ “Teaching Critical Thinking,” Student-Invited Speaker, Texas A&M Graduate Teaching Academy (GTA), College Station, TX, November, 2008. (Invited)

• PUBLICATIONS DURING 2008

• ADDITIONAL UNIVERSITY TITLES HELD DURING 2008
  ▶ Member, Interdisciplinary Faculty, Neuroscience, [2004]
  ▶ Member, Interdisciplinary Faculty, Genetics, [/]

• SERVICE DURING 2008

  National

  University
  ▶ Committee/Panel: Distinguished Lectureship Series Committee (Member), Faculty Senate (Faculty Senator - 04), Senate Academic Affairs Committee (Member), Senate Legislative Affairs Committee (Member)

  Department
  ▶ Committee/Panel: Graduate Review and Admissions Committee (Member)

  Interdisciplinary/Intercollegiate
  ▶ Committee/Panel: Faculty of Genetics (Member), Faculty of Genetics Executive Committee (Member), Faculty of Neuroscience Curriculum Committee (Member), Genetics Seminar Committee (Chair)

• TEACHING ASSIGNMENTS DURING 2008

  Spring
  ▶ BIOL 113. — *Introductory Biology* (total enrollment: 46)
  ▶ BIOL 691. — *Research* (total enrollment: 4)

  Summer
  ▶ BIOL 691. — *Research* (total enrollment: 4)

  Fall
  ▶ BIOL 627 — *Principles of Neuroscience I* (total enrollment: 6)
  ▶ BIOL 691. — *Research* (total enrollment: 3)

• RESEARCH PROJECTS DURING 2008

  Federal
  ▶ Cilia Assembly and Transport in the Vertebrate Retina, *National Institutes of Health*, coworkers: H. Flammer (U), L. Hudak (U), V. Hui (U), B. Krock (U), M. Lindsay (U), V. LoDuca (U), S. Lunt (U), C. Stupka (U), S. Sukumaran (U)

  International
Photoreceptor Survival and Function in a Zebrafish Model of Choroideremia, *Chorioideremia Research Foundation Canada, Inc.*

- **PRESENTATIONS DURING 2008**
  - “Ciliary Trafficking Defects in Zebrafish Models of Inherited Retinal Degenerations,” Department of Biochemistry and Molecular Biology, Baylor College of Medicine, Houston, TX, January, 2008. (Invited)
  - “Ciliary Trafficking Defects in Zebrafish Models of Inherited Retinal Degenerations,” Texas Genetics Society, College Station, TX, March, 2008. (Invited)
  - “Ciliary Trafficking Defects in Zebrafish Models of Inherited Retinal Degenerations,” Minisymposium, ARVO International Meeting, Ft. Lauderdale, FL, April, 2008. (Individual)
  - “Mutation in the atp6v0c Gene Causes Photoreceptor and RPE Degeneration in the Pieagus Mutant,” ARVO International Meeting, Ft. Lauderdale, FL, April, 2008. (Individual)

- **PUBLICATIONS DURING 2008**
• SERVICE DURING 2008

National
  ▶ Editorial/Board: Current Biology (Referee: Journals)

Department
  ▶ Committee/Panel: Graduate Recruiting/Admissions Committee (Member)

• TEACHING ASSIGNMENTS DURING 2008

Spring
  ▶ BIOL 491. — Research (total enrollment: 2)
  ▶ BIOL 613. — Cell Biology (total enrollment: 19)
  ▶ BIOL 691. — Research (total enrollment: 1)

Summer
  ▶ BIOL 491. — Research (total enrollment: 1)
  ▶ BIOL 691. — Research (total enrollment: 1)

Fall
  ▶ BIOL 213. — Molecular Cell Biology (total enrollment: 46)
  ▶ BIOL 491. — Research (total enrollment: 1)
  ▶ BIOL 691. — Research (total enrollment: 1)

• RESEARCH PROJECTS DURING 2008

Private
  ▶ Identification of Effectors for IFT27, an Intraflagellar Transport (IFT) Particle Protein Functioning in the Cell Cycle, Polycystic Kidney Disease Foundation, coworkers: Z. Wang (P), X. Huang (G), S. Gwak (U), G. Hartman (U), C. Retzloff (U), S. Williamson (U)

• PRESENTATIONS DURING 2008

  ▶ “Intraflagellar Transport,” National Institute of Biological Sciences, Beijing, January, 2008.( Invited)
  ▶ “Intraflagellar Transport,” The Institute of Microbiology, Chinese Academy of Sciences, Beijing, January, 2008.( Invited)
  ▶ “Chlamydomonas DYF-1 is an IFT Particle Complex B Subunit Required for Flagellar Assembly,” The American Society for Cell Biology, San Francisco, CA, December, 2008.(Poster Individual)
• ADDITIONAL UNIVERSITY TITLES HELD DURING 2008
  ▶ Member, Interdisciplinary Faculty, Genetics, [2006]

• SERVICE DURING 2008
  National
  ▶ Editorial/Board: National Institutes of Health, Wellcome Trust (Review: Proposals), Tenure: Rice University, Baylor College of Medicine, Medical College of Georgia (Reviewed), Development, Developmental Biology, Developmental Dynamics, Disease Mechanisms & Models, Genome Biology, PLoS ONE (Referee: Journals)
  ▶ Committee/Panel: Developmental Dynamics, PLoS One (Editorial Advisory Board)
  College
  ▶ Committee/Panel: Faculty Advisory Council (Chair), Tenure and Promotion Advisory Committee (Member)
  Department
  ▶ Committee/Panel: Biology Lab Animal Care Committee (Member), Department Head Search Committee (Chair), Graduate Program Committee (Member), IEEF Committee (Chair)
  Interdisciplinary/Intercollegiate
  ▶ Committee/Panel: Genetics Executive Committee (Member), Genetics Membership Committee (Member)

• TEACHING ASSIGNMENTS DURING 2008
  Spring
  ▶ BIOL 291. — Research (total enrollment: 1)
  ▶ BIOL 491. — Research (total enrollment: 2)
  ▶ BIOL 691. — Research (total enrollment: 5)
  ▶ GENE 691. — Research (total enrollment: 2)
  ▶ ZOOL 344 — Embryology (total enrollment: 26)
  Summer
  ▶ BIOL 691. — Research (total enrollment: 5)
  Fall
  ▶ BIOL 291. — Research (total enrollment: 1)
  ▶ BIOL 491 — Research (total enrollment: 1)
  ▶ BIOL 611. — Molecular Biology of Differentiation and Development (total enrollment: 8)
  ▶ BIOL 691. — Research (total enrollment: 5)
GENE 691. — Research (total enrollment: 2)

- **RESEARCH PROJECTS DURING 2008**
  
  **Federal**
  
  - (REN) Genetic Analysis of Inner Ear Development in Zebrafish, *National Institute on Deafness and Other Communication Disorders*, coworkers: B. Guo (Technician), H. Kwon (P), N. Bhat (G), B. Butler (G), M. Padanad (G), E. Sweet (G), S. Vemaraju (G)
  
  - (REN) Genetic Analysis of Inner Ear Development in Zebrafish, *National Institute on Deafness and Other Communication Disorders*, coworkers: M. Dhason (Research Assistant), H. Kwon (P), N. Bhat (G), B. Butler (G), M. Padanad (G), E. Sweet (G), S. Vemaraju (G)

- **PRESENTATIONS DURING 2008**
  
  - “Inner Ear Development in Zebrafish: Genetic Regulation of a Complex Sensory System,” Harding University, Searcy, AR, October, 2008. (Invited)

- **PUBLICATIONS DURING 2008**
  
• ADDITIONAL UNIVERSITY TITLES HELD DURING 2008
  ▷ Member, Interdisciplinary Faculty, Molecular and Environmental Plant Sciences, [2006]

• SERVICE DURING 2008

  International
  ▷ Editorial/Board: *European Journal of Phycology* (Referee: Journals)

  National

• TEACHING ASSIGNMENTS DURING 2008

  Spring
  ▷ BIOL 111. — *Introductory Biology I* (total enrollment: 338)
  ▷ BIOL 285. — *Directed Studies* (total enrollment: 2)
  ▷ BIOL 491. — *Research* (total enrollment: 1)

Retired 05/31/2008.
• **ADDITIONAL UNIVERSITY TITLES HELD DURING 2008**
  ▷ Member, Interdisciplinary Faculty, Genetics, [2008]
  ▷ Member, Interdisciplinary Faculty, Neuroscience, [2008]
  ▷ Member, Interdisciplinary Faculty, Reproductive Biology, [2008]
  ▷ Member, Interdisciplinary Faculty, Ecology and Evolutionary Biology, [2006]

• **SERVICE DURING 2008**
  **International**
  ▷ Editorial/Board: US-Israel Binational Foundation (Review: Proposals)
  ▷ Committee/Panel: Public Affairs Committee, Animal Behavior Society (Chair)

  **National**
  ▷ Committee/Panel: NSF-IGERT Graduate Fellowships Committee (Member), NSF-IGERT in Applied Biodiversity Sciences (Member)

  **Department**
  ▷ Committee/Panel: Graduate Admissions (Member), Graduate Recruiting (Member)

  **Interdisciplinary/Intercollegiate**
  ▷ Service Position: Ecology and Evolutionary Biology IRG, Communications (Chair), Marine Biology Graduate Program Admissions Committee (Member)
  ▷ Committee/Panel: Casa Verde Curriculum Committee (Member), Casa Verde Steeing Committee (Member)

• **TEACHING ASSIGNMENTS DURING 2008**
  **Spring**
  ▷ BIOL 291. — Research (total enrollment: 2)
  ▷ BIOL 491. — Research (total enrollment: 4)
  ▷ BIOL 691. — Research (total enrollment: 4)

  **Summer**
  ▷ BIOL 691. — Research (total enrollment: 4)

  **Fall**
  ▷ BIOL 291. — Research (total enrollment: 1)
  ▷ BIOL 489. — Special Topics in (total enrollment: 17)
• RESEARCH PROJECTS DURING 2008

Federal

▷ Evolutionary Genetics of Visual Communication, National Institutes of Health, coworkers: S. Coleman (P)
▷ Recombinant Traits and Recombinant Mating Preferences in Hybrid Zones, National Science Foundation, coworkers: S. Coleman (P), H. Fisher (P), M. Verzijden (P), Z. Cress (G), Z. Culumber (G), J. Johnson (G), N. Ratterman (G), C. Wat (G), J. Christopher (U), C. Dobbs (U), M. Gaona (U), A. Gray (U), R. McCreary (U), A. Ratley (U), S. Townsend (U)

• PRESENTATIONS DURING 2008

▷ “Behavior and Evolutionary Genetics in Hybrid Zones,” Department of Ecology and Evolutionary Biology, Yale University, New Haven, CT, August, 2008. (Invited)
• ADDITIONAL UNIVERSITY TITLES HELD DURING 2008
  ⊳ Member, Interdisciplinary Faculty, Genetics, [2007]

• SERVICE DURING 2008
  National
  ⊳ Editorial/Board: Plasmid, Mol. Biol. Cell (Referee: Journals)
  Department
  ⊳ Committee/Panel: Graduate Recruitment Committee (Member)
  Interdisciplinary/Intercollegiate
  ⊳ Committee/Panel: Chemistry/Biology Interface Program (Member)

• TEACHING ASSIGNMENTS DURING 2008
  Spring
  ⊳ BIOL 491. — Research (total enrollment: 1)
  ⊳ BIOL 613. — Cell Biology (total enrollment: 19)
  Fall
  ⊳ BIOL 413. — Cell Biology (total enrollment: 37)

• RESEARCH PROJECTS DURING 2008
  Federal
  ⊳ Molecular Mechanisms of Nuclear Pore Complex Assembly, National Science Foundation, coworkers: M. Harville (Research Assistant), J. Park (G), W. Shaikh (U), J. Spinks (U)

• PRESENTATIONS DURING 2008
• SERVICE DURING 2008

International
▷ Editorial/Board: Israeli Science Foundation (Review: Proposals)

National
▷ Advisory Board: Fungal Genetics Stock Center Advisory Board, Fungal Genome Initiative (Chair)
▷ Editorial/Board: Eukaryotic Cell, Faculty of 1000, Fungal Genetics and Biology, Genetics (Editorial Advisory Board), Fungal Genetics Newsletter (Editor-in-Chief), Eukaryotic Cell, FEBS Letters, Fungal Genetics and Biology, Genes and Development, Molecular Cell, Molecular Cell Biology (Referee: Journals)

• TEACHING ASSIGNMENTS DURING 2008

Summer
▷ BIOL 491. — Research (total enrollment: 1)
▷ BIOL 691. — Research (total enrollment: 1)

Fall
▷ BIOL 351. — Fund of Microbiol (total enrollment: 54)
▷ BIOL 491. — Research (total enrollment: 1)

• RESEARCH PROJECTS DURING 2008

Federal
▷ Control of Arg-2 Gene Expression in Neurospora, National Institutes of Health, coworkers: V. Zeenko (P), S. McEldowney (G), C. Wu (G)
▷ Comparative Fungal Genomes, National Science Foundation, coworkers: K. Moore (G)
▷ Functional Analysis of a Model Filamentous Fungus, National Science Foundation, coworkers: M. Basturkmen (P), H. Hood (P)

Private
▷ Functional Analysis of a Model Filamentous Fungus, Dartmouth College

• PUBLICATIONS DURING 2008
• ADDITIONAL UNIVERSITY TITLES HELD DURING 2008
  ▶ Member, Interdisciplinary Faculty, Biotechnology, [2006]
  ▶ Member, Interdisciplinary Faculty, Genetics, [2006]

• SERVICE DURING 2008
  National
  ▶ Editorial/Board: Applied & Environ. Microbiology, Journal of Bacteriology, Molecular Microbiology, PNAS (Referee: Journals), Journal of Bacteriology (Editorial Advisory Board)
  University
  ▶ Committee/Panel: Graduate Appeals Panel (Member), Protein Chemistry Lab User Committee (Member)
  Department
  ▶ Committee/Panel: Annual Review Committee (Member), Microbiology Search Committee (Member)

• TEACHING ASSIGNMENTS DURING 2008
  Spring
  ▶ BIOL 351. — Fund of Microbiol (total enrollment: 120)
  ▶ BIOL 491. — Research (total enrollment: 1)
  ▶ GENE 491 — Research (total enrollment: 2)
  Summer
  ▶ BICH 491 — Research (total enrollment: 1)
  Fall
  ▶ BIOL 351. — Fund of Microbiol (total enrollment: 151)
  ▶ BIOL 491. — Research (total enrollment: 3)
  ▶ BIOL 689. — Special Topics in (total enrollment: 8)

• RESEARCH PROJECTS DURING 2008
  Federal
  ▶ Development of the EcoliCommunity.org Information Resource, National Institute of General Medical Sciences, coworkers: B. McIntosh (P), G. Knapp (G), A. Venkatraman (G), A. Zweifel (G), N. Liles (U), D. Renfro (U)

• PRESENTATIONS DURING 2008

• PUBLICATIONS DURING 2008
- **ADDITIONAL UNIVERSITY TITLES HELD DURING 2008**
  - Member, Interdisciplinary Faculty, Neuroscience, [2006]

- **SERVICE DURING 2008**
  - **National**
  - **Department**
    - Committee/Panel: Ad Hoc Graduate Recruiting Committee (Member), Animal Care Committee (Member), Undergraduate Program Committee (Member)

- **TEACHING ASSIGNMENTS DURING 2008**
  - **Spring**
    - BIOL 491. — Research (total enrollment: 3)
    - BIOL 689. — Special Topics in (total enrollment: 7)
    - BIOL 691. — Research (total enrollment: 3)
  - **Summer**
    - BIOL 691. — Research (total enrollment: 3)
  - **Fall**
    - BIOL 434. — Regulatory and Behavioral Neuroscience (total enrollment: 56)
    - BIOL 691. — Research (total enrollment: 3)

- **RESEARCH PROJECTS DURING 2008**
  - **Federal**
    - A Neural Interface for Coordinating Speech and Breathing, *National Institutes of Health*, coworkers: C. Schwartz (G), J. Tressler (G), K. Baeza (U), S. Ezell (U), S. Whinery (U)

- **PRESENTATIONS DURING 2008**
• PUBLICATIONS DURING 2008
THOMAS A. STIDHAM

ASSISTANT PROFESSOR (979) 845-4660
BIOL-Avian Paleontology tstidham@mail.bio.tamu.edu

- ADDITIONAL UNIVERSITY TITLES HELD DURING 2008
  ▶ Member, Interdisciplinary Faculty, Ecology and Evolutionary Biology, [2006]

- SERVICE DURING 2008

  International
  ▶ Editorial/Board: *Current Science (India)* (Referee: Journals)

  National

- TEACHING ASSIGNMENTS DURING 2008

  Spring
  ▶ BIOL 214. — *Genes, Ecology and Evolution* (total enrollment: 60)
  ▶ BIOL 291. — *Research* (total enrollment: 1)
  ▶ BIOL 491. — *Research* (total enrollment: 3)

  Summer
  ▶ BIOL 214. — *Genes, Ecology and Evolution* (total enrollment: 15)

  Fall
  ▶ BIOL 214. — *Genes, Ecology and Evolution* (total enrollment: 60)
  ▶ BIOL 491. — *Research* (total enrollment: 5)

- RESEARCH PROJECTS DURING 2008

  Federal
  ▶ Non Destructive High Resolution CT-Scanning of a Crocodilian Bearing Vertebrate Fossil Lagerstatte in a 110 Ma Mid-Pacific Drowned Atoll, ODP Site 865, *National Science Foundation*

- PRESENTATIONS DURING 2008

“Marine Vertebrates from the K-P Boundary in Eastern Texas,” Geological Society of America Abstracts with Program, Houston, TX, October, 2008. (Individual)


“Vertebrate Fauna from the Paleogene Calvert Bluff Formation, Texas,” Journal of Vertebrate Paleontology, Cleveland, OH, October, 2008. (Poster Individual)

“Biotic Response to Climatic Change in the Fossil Record: Evolution, Extinction, and Geography,” Zoological Society of Texas A&M University, College Station, TX, November, 2008. (Invited)

- PUBLICATIONS DURING 2008
• TEACHING ASSIGNMENTS DURING 2008

Spring
▷ BIOL 320 — Integrated Hum AN/PHY II (total enrollment: 335)

Summer
▷ BIOL 320 — Integrated Hum AN/PHY II (total enrollment: 162)

Fall
▷ BIOL 320 — Integrated Hum AN/PHY II (total enrollment: 183)

• PUBLICATIONS DURING 2008

• ADDITIONAL UNIVERSITY TITLES HELD DURING 2008
  › Member, Interdisciplinary Faculty, Molecular and Environmental Plant Sciences, [2006]
  › Member, Interdisciplinary Faculty, Biotechnology, [2006]
  › Director, Shared Instrumentation Facility, Biology, [1]
  › Director, Laboratory for Functional Genomics, Biology, [1]

• SERVICE DURING 2008
  National
  › Editorial/Board: National Science Foundation (Review: Proposals), United States Department of Agriculture (Review: Proposals), Plant Physiology, Planta, PNAS (Referee: Journals)
  University
  › Committee/Panel: Research Foundation PI Advisory Committee (Member)
  College
  › Committee/Panel: Tenure and Promotion Advisory Committee (Member)
  Department
  › Committee/Panel: Computer Committee (Chair), Space Committee (Chair), Web Committee (Chair)

• TEACHING ASSIGNMENTS DURING 2008
  Spring
  › BIOL 481. — Seminar in Biology (total enrollment: 23)
  › BIOL 491. — Research (total enrollment: 2)
  › BIOL 691. — Research (total enrollment: 1)
  Summer
  › BIOL 491. — Research (total enrollment: 1)
  › BIOL 691. — Research (total enrollment: 1)
  Fall
  › BIOL 213. — Molecular Cell Biology (total enrollment: 96)
  › BIOL 491. — Research (total enrollment: 2)
  › BIOL 691. — Research (total enrollment: 1)

• RESEARCH PROJECTS DURING 2008
  Federal
(REN) Coordination of Circadian Physiology of Diverse Species, National Institutes of Health

Industrial
(REN) Functional Genomics of the Rice Blast Fungus, Magnaporthe Grisea Phase IV- Novel Modes of Action to Control Plant Pathogens, Bayer CropScience, coworkers: M. Kopecky (U)

• PRESENTATIONS DURING 2008
  ▶ “Functional Genomics of the ABI5 bZIP Subfamily of Transcription Factors,” Clemson University, Clemson, SC, April, 2008. (Individual)

• PUBLICATIONS DURING 2008
• SERVICE DURING 2008

National
▷ Editorial/Board: Texas Journal of Science (Editorial Advisory Board), Undergraduate Research Proposals, Texas Academy of Science Scholarship Program (Review: Proposals)

Regional
▷ Committee/Panel: Brazos Valley Museum of Natural History Collections Committee (Member), Brazos Valley Museum of Natural History Executive Committee (Member)

University
▷ Professional Affiliation: Texas A&M Century Scholars Program (Mentor), Texas A&M Graduate Teaching Academy (Mentor)
▷ Event: Aggie Recruitment Committee Conference (Host)

College
▷ Event: Texas Junior Science & Humanities Symposium (Judge), Texas Science Olympiad (Coordinator)

Department
▷ Committee/Panel: Library Representative (Member), Lower Division Instruction Advisory Committee (Member)

• TEACHING ASSIGNMENTS DURING 2008

Spring
▷ BIOL 112. — Introductory Biology II (total enrollment: 599)

Fall
▷ BIOL 112. — Introductory Biology II (total enrollment: 323)
▷ BIOL 285. — Directed Studies (total enrollment: 1)

• PRESENTATIONS DURING 2008

▷ “Preparing Teams for State Exams in Herpetology and Amphibians/Reptiles Events,” College of Science, Texas A&M University, College Station, TX, November, 2008. (Individual)
• ADDITIONAL UNIVERSITY TITLES HELD DURING 2008
  ▶ Member, Interdisciplinary Faculty, Molecular and Environmental Plant Sciences, [2006]

• SERVICE DURING 2008

National
  ▶ Editorial/Board: National Science Foundation (Review: Proposals), Plant Signaling and Behavior (Member), Proceedings of the National Academy of Science, USA, Plant Cell, BMC Research Notes, Applied and Environmental Microbiology, Botanical Studies (Referee: Journals)

Department
  ▶ Research Group: Molecular and Cell Biology Training Program (Member)
  ▶ Committee/Panel: Lower Division Instruction Advisory Committee (Member)

Interdisciplinary/Intercollegiate
  ▶ Research Group: MEPS Graduate Admissions Committee (Member), MEPS Symposium Organization Committee (Member), Molecular and Cell Biology Training Program (Member), Program for the Biology of Filamentous Fungi (Member)

• TEACHING ASSIGNMENTS DURING 2008

Spring
  ▶ BIOL 491. — Research (total enrollment: 2)
  ▶ BIOL 635. — Plant Molecular Biology (total enrollment: 13)
  ▶ BIOL 691. — Research (total enrollment: 4)

Summer
  ▶ BIOL 691. — Research (total enrollment: 3)

Fall
  ▶ BIOL 213. — Molecular Cell Biology (total enrollment: 84)
  ▶ BIOL 491. — Research (total enrollment: 1)
  ▶ BIOL 691. — Research (total enrollment: 3)

• RESEARCH PROJECTS DURING 2008

Federal
  ▶ Molecular Physiology of Phosphate Transport in Arabidopsis, National Science Foundation, coworkers: T. Fowler (G), B. Guo (G), S. Irigoyen (G), H. Belveal (U), D. Chen (U)

• PRESENTATIONS DURING 2008
“Molecular Physiology of Plastidic Phosphate Transport in Arabidopsis,” Department of Biology, Texas A&M University, College Station, TX, September, 2008.( Individual)

“Molecular Physiology of Plastidic Phosphate Transport,” Plant Biology Division 20th Anniversary Symposium, Samuel Roberts Noble Foundation, Ardmore, OK, October, 2008.( Individual)

• PUBLICATIONS DURING 2008


• SERVICE DURING 2008

University
▷ Event: High School Seniors with Aggie Recruitment Committee’s (Host), Seniors Experiencing Aggie Life Conference (Participant)

• TEACHING ASSIGNMENTS DURING 2008

Spring
▷ BIOL 111. — Introduction to Biology I (total enrollment: 259)
▷ BIOL 206. — Introductory Microbiology (total enrollment: 29)

Summer
▷ BIOL 111. — Introduction to Biology I (total enrollment: 78)
▷ BIOL 206. — Introductory Microbiology (total enrollment: 14)
▷ BIOL 285. — Directed Studies (total enrollment: 1)

Fall
▷ BIOL 111. — Introduction to Biology I (total enrollment: 515)
▷ BIOL 285. — Directed Studies (total enrollment: 2)
MARY K. WICKSTEN

PROFESSOR (979) 845-3388
BIOL-Invertebrate Zoology, Marine Biology wicksten@mail.bio.tamu.edu

• AWARDS DURING 2008

International
▷ Special Recognition at the Sixth Reunion in Honor of Professor Alejandro Villabos, Mazatlan, Mexico, Universidad Nacional Autonoma de Mexico

• SERVICE DURING 2008

International
▷ Event: Summer Meeting of the Crustacean Society (Co-Organizer)
▷ Editorial/Board: Journal of the Marine Biological Association of the United Kingdom, Journal of Caribbean Science, Revista Brasileira de Zoologia (Referee: Journals)

National

University
▷ Committee/Panel: Scientific Diving Safety Committee (Member), TAMU-Galveston Committee to Prepare Interdisciplinary Degree in Marine Biological Sciences (Member)

Interdisciplinary/Intercollegiate
▷ Professional Affiliation: Sigma XI (Member)

• TEACHING ASSIGNMENTS DURING 2008

Spring
▷ BIOL 491. — Research (total enrollment: 9)
▷ BIOL 691. — Research (total enrollment: 4)
▷ ZOOL 335 — Invertebrate Zoology (total enrollment: 42)

Summer
▷ BIOL 491. — Research (total enrollment: 4)
▷ BIOL 691. — Research (total enrollment: 4)
▷ ZOOL 335 — Invertebrate Zoology (total enrollment: 12)

Fall
▷ BIOL 491. — Research (total enrollment: 6)
▷ BIOL 691. — Research (total enrollment: 4)
▷ ZOOL 335 — Invertebrate Zoology (total enrollment: 43)
• RESEARCH PROJECTS DURING 2008

Federal
▷ Systematics and Taxonomic Revision of Four Cold-Water Genera of the Thoridae (Crustacea Caridea), National Science Foundation, coworkers: L. Hurtado (P), C. Santamaria (G)

• PRESENTATIONS DURING 2008

▷ “Deep Benthic Decapods of the Gulf of Mexico,” Reunion of Crustacean Biologists of Latin-American Countries in Honor of Professor Alejandro Villalobos, Mazatlan, Mexico, October, 2008. (Individual)
▷ “Growth, Character Development, Relationships and Life Habits of Belosaepia Ungula Gabb (Coleoida) in the Middle Eocene of the North American Gulf Coast,” Geological Society of America Annual Meeting, Houston, TX, October, 2008. (Contributed)

• PUBLICATIONS DURING 2008

• SERVICE DURING 2008

National
  ▶ Editorial/Board: *Systematic Botany* (Referee: Journals)
  ▶ Committee/Panel: Texas Oklahoma Regional Consortium of Herbaria Steering Committee (Member)

College
  ▶ Committee/Panel: Grievance Committee (Elected Member)

• TEACHING ASSIGNMENTS DURING 2008

Spring
  ▶ BIOL 301. — *Taxonomy of Flowering Plants* (total enrollment: 46)
  ▶ BOTN 328. — *Plants and People* (total enrollment: 45)

Fall
  ▶ BIOL 301. — *Taxonomy of Flowering Plants* (total enrollment: 62)
  ▶ BIOL 328. — *Plants and People* (total enrollment: 55)
• SERVICE DURING 2008
  
  University
  ▷ Service Position: SHIP Lab Development, Teaching, and Demonstration (Developer)
  ▷ Event: Summer Honors Invitational, Lab Development and Demonstration (Participant)
  
  Department
  ▷ Committee/Panel: Lower Division Biology Advisory Committee (Member)

• TEACHING ASSIGNMENTS DURING 2008
  
  Spring
  ▷ ZOOL 107 — Zoology (total enrollment: 129)
  
  Fall
  ▷ ZOOL 107 — Zoology (total enrollment: 129)

• PRESENTATIONS DURING 2008
  ▷ “Rio Negro Expedition, Brazil,” Zoology Club, 2008. (Invited)
• SERVICE DURING 2008

International

Department
   ▶ Committee/Panel: Faculty Search Committee (Member)

• TEACHING ASSIGNMENTS DURING 2008

Spring
   ▶ BIOL 491. — Research (total enrollment: 1)
   ▶ BIOL 651. — Bioinformatics (total enrollment: 8)

Fall
   ▶ BIOL 481. — Seminar in Biology (total enrollment: 8)
   ▶ BIOL 682. — Research Seminar (total enrollment: 13)
• ADDITIONAL UNIVERSITY TITLES HELD DURING 2008
  ▶ Adjunct Associate Professor, Psychology, [2007]
  ▶ Associate Dean for Graduate Studies, Office of Graduate Studies, College of Science, [2003]
  ▶ Director, Real Time Imaging Labs: Cell Physiology and Molecular Imaging, Biology, [2001]

• AWARDS DURING 2008
  College
  ▶ Distinguished Achievement Award - Teaching, The Association of Former Students

• SERVICE DURING 2008
  International
  ▶ Editorial/Board: International Journal of Developmental Biology (Referee: Journals)
  National
  ▶ Service Position: USA Track & Field, Gulf Association (Certified Official)
  ▶ Editorial/Board: National Science Foundation (Review: Proposals), Brain Research, Journal of Biological Rhythms, Journal of Neuroscience (Referee: Journals)
  University
  ▶ Research Group: Texas A&M UniversityCenter for Research on Biological Clocks (Member)
  ▶ Committee/Panel: English Language Proficiency Certification Review Committee (Member), Enrollment Management Oversight Committee (Member), Graduate Admissions Processing Council (Member), Graduate Council/Graduate Operations Committee (Member), Institutional Animal Care and Use Committee (Member), Interdisciplinary Program Writing Committee (Member), Texas A&M UniversityChapter, Sigma Xi Society (Treasurer)
  College
  ▶ Service Position: Graduate Student Council (Advisor)
  ▶ Committee/Panel: Executive Committee (Member), Graduate Instruction Committee (Chair)
  Department
  ▶ Committee/Panel: Biology Executive Committee (Member), Outstanding Staff (Merit) Award Selection Committee (Member)
  Interdisciplinary/Intercollegiate
  ▶ Committee/Panel: Search Committee for Marine Sciences Department Head (Member)
• TEACHING ASSIGNMENTS DURING 2008

Spring
▷ BIOL 291. — Research (total enrollment: 2)
▷ BIOL 491. — Research (total enrollment: 1)
▷ BIOL 681. — Seminar (total enrollment: 6)
▷ BIOL 691. — Research (total enrollment: 2)
▷ ZOOL 691. — Research (total enrollment: 2)

Summer
▷ BIOL 691. — Research (total enrollment: 2)
▷ ZOOL 691. — Research (total enrollment: 2)

Fall
▷ BIOL 291. — Research (total enrollment: 2)
▷ BIOL 491. — Research (total enrollment: 2)
▷ BIOL 634 — Comparative Neurobiology (total enrollment: 11)
▷ BIOL 691. — Research (total enrollment: 2)
▷ ZOOL 691. — Research (total enrollment: 2)

• RESEARCH PROJECTS DURING 2008

Federal
▷ (REN) Coordination of Circadian Physiology of Diverse Species, National Institutes of Health, coworkers: J. Burkeen (Research Assistant), A. Womac (Research Assistant), K. Kaltwasser (U), S. Osman (U)

• PRESENTATIONS DURING 2008

▷ “Passages to Scholarship,” Keynote Address to the College of Arts and Sciences Academic Conference, Texas A&M International University, Laredo, TX, March, 2008. (Invited)
▷ “Worm Speed: Neural Correlates of Escape and Regeneration in Annelids,” Department of Biology and Chemistry, Texas A&M International University, Laredo, TX, March, 2008. (Invited)
▷ “From Molecules to Miracles of the Brain,” Master Lecture, Honors Program’s Lechner Overnight Express Program for National Merit Recruiting, Texas A&M University, College Station, TX, November, 2008. (Invited)

• PUBLICATIONS DURING 2008

7. Research Activity, 2008

This section contains information on all funded research activity for the calendar year 2008. Information was initially reported by faculty and verified whenever possible through the granting agency. Because of calculations and rounding there is a small margin of error.

*Information reported by faculty:*
- Title
- Granting Agency
- PIs, Co-PIs, and co-workers (internal/external)
- Total Funding
- Indirect Costs
- Start & End Dates

*Calendar year calculations:*
- Total - Indirect = Direct
- # Days Total Grant = End Date - Start Date
- Daily Grant Award = Total Funding Reported / # Days Total Grant
- Grant Award for 2008 = # Days 2008 × Daily Grant Award
### Federal Agencies

#### National Institute of General Medical Sciences

<table>
<thead>
<tr>
<th>Grantee</th>
<th>Title</th>
<th>Start</th>
<th>End</th>
<th>Direct</th>
<th>Indirect</th>
<th>Total</th>
</tr>
</thead>
<tbody>
<tr>
<td>Erickson, J.W.</td>
<td>Chromosome Counting Mechanisms in Sex Determination</td>
<td>1/1/2003</td>
<td>8/31/2009</td>
<td>95,974</td>
<td>43,668</td>
<td>139,642</td>
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<td>Siegele, D.A.</td>
<td>Development of the EcoliCommunity.org Information Resource</td>
<td>6/1/2006</td>
<td>5/31/2009</td>
<td>50,000</td>
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<td>50,000</td>
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<td></td>
<td>145,974</td>
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<td>189,642</td>
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#### National Institute on Deafness and Other Communication Disorders

<table>
<thead>
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<th>Grantee</th>
<th>Title</th>
<th>Start</th>
<th>End</th>
<th>Direct</th>
<th>Indirect</th>
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<tbody>
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#### National Institutes of Health

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*Subtotal: National Institutes of Health*  
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*National Science Foundation*

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SEC. 7. RESEARCH ACTIVITY 125
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**Subtotal: National Science Foundation** 675,470  53,328  728,798

**U.S. Department of Agriculture**

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**State Agencies**

**Texas Hazardous Waste Research Center**
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SEC. 7. RESEARCH ACTIVITY 129
# 7.2 Summary of Individual Support, 2008

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| *Pepper, A.E.*                  | Genetics of Serpentine Adaption and Endemism                         | 9/1/2005    | 8/31/2009   | 38,750 | 0        | 38,750|
| U.S. Department of Agriculture  | Transitioning to True Molecular Breeding in Cotton: Whole-Genome Association Mapping to Identify Markers for Photoperiodic Flowering in Gossypium hirsutum L. | 1/1/2008    | 12/31/2010  | 71,433 | 0        | 71,433|
| Texas Parks and Wildlife        | Population Structure and Habitat Requirements of the Bracted Twistflower, Streptanthus Bracteatus (Crassicaceae), a Rare Plant | 2/28/2007   | 11/30/2008  | 16,500 | 3,300    | 19,800|

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| *Perkins, B.D.*                 | Cilia Assembly and Transport in the Vertebrate Retina                 | 7/1/2006    | 6/30/2011   | 250,110 | 38,000   | 288,110|

*Subtotal Perkins, B.D.* 253,489 38,000 291,489

| *Qin, H.*                      |                                                                     |             |             |        |          |       |

2008 Biology Annual Report
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<td><strong>Subtotal Thomas, T.L.</strong></td>
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<td>National Science</td>
<td>Molecular Physiology of Phosphate Transport in Arabidopsis</td>
<td>8/1/2004</td>
<td>7/31/2008</td>
<td>62,439</td>
<td>12,395</td>
<td>74,834</td>
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<td><strong>Subtotal Versav, V.K.</strong></td>
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<td>National Science</td>
<td>Systematics and Taxonomic Revision of Four Cold-Water Genera of the Thoridae (Crustacea Caridea)</td>
<td>12/1/2007</td>
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<td>4,376</td>
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<td><strong>Subtotal Zoran, N.J.</strong></td>
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<td>*** Total: All Faculty</td>
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<td>4,451,809</td>
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<td>5,042,836</td>
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</table>
Annual Report, 2008

THE DEPARTMENT OF CHEMISTRY
TEXAS A&M UNIVERSITY

College Station, Texas
Contents

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2. Departmental Statistics ................................................................. 143
   2.1 Statistical Abstract ............................................................... 144
3. Honors and Awards ........................................................................... 145
   3.1 Received by Faculty .................................................................. 146
   3.2 Received by Students ................................................................. 147
4. Students ............................................................................................ 149
   4.1 Graduate Degrees Awarded ....................................................... 150
   4.2 Undergraduate Degrees Awarded ............................................. 154
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   6.1 Professional Activities .............................................................. 169
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   7.2 By Faculty Member ................................................................. 330
1. Foreword from the Department Head

The Chemistry Department offers B.A. and B.Sc. undergraduate degrees and M.Sc. and Ph.D graduate degrees, and maintains highly-ranked nationally and internationally recognized research programs in the areas of analytical, biological, inorganic, organic, and physical chemistry. We have very large enrollments in our service courses, and we maintain several outreach and service activities, e.g., our annual Chemistry Open House and Chemistry Road Show program.

The University’s faculty reinvestment program has allowed us to expand our faculty during the last few years, with the successful recruiting of Professors Hongcai (Joe) Zhou and Oleg Ozerov from Ohio University and Brandeis University, respectively. In addition, we have successfully recruited Professors Tadhg Begley and Karen Wooley from Cornell University and Washington University, respectively. Professor Begley will hold the Robert A. Welch Chair and Barton Professor of Chemistry, formerly held by the late A. Ian Scott, and Professor Wooley will hold the W.T. Doherty-Welch Chair, formerly held by the late F. Albert Cotton.

Our faculty continued to receive national and international recognition through awards and invited lectures. Professor Wayne Goodman received the 2008 JoAnn Treat Research Excellence Award, Professor David Bergbreiter received the Association of Former Students (AFS) Award in Research, Professor Daniel Singleton received the AFS Award in Teaching, and Professor Sherry Yennello received the Distinguished Achievement College-Level Award in Teaching from AFS. Professor Abraham Clearfield received the American Chemical Society (ACS) Northeast Regional Award for Achievement in Chemical Sciences, Professor David Bergbreiter received the ACS Southwest Regional Award for 2008. Professors John Gladysz and Ronald Macfarlane were promoted to the rank of Distinguished Professor.

Our external funding for both education and research is strong. Our National Science Foundation funded Research Experiences for Undergraduates continues to provide opportunities for undergraduates to carry out research projects in the department during the summer of 2008, and the Advancement Placement Teachers Workshops provide excellent opportunities for high school teachers to interact with faculty, improve their teaching skills and network with peers. In addition, 22 graduate students from chemistry were recipients of National Science Foundation pre-doctoral Fellowships through a GK-12 grant. These students serve as science educators in local K-12 schools. The department maintains a high level of funding for research through state and federal agencies, industrial companies, and private foundations, and these funding sources allow us to maintain a large number of undergraduate students, graduate students, and post-doctoral researchers. Our total number of undergraduate chemistry majors has grown to 270 and our total number of graduate students is 261.

The coming year offers many new challenges as the enrollment in our classes continues to grow and as we recruit new students and faculty. I appreciate the continued support and confidence from my colleagues and staff in the department as we look to the future.
2. Departmental Statistics

This section contains information, clarified by each department and gathered from the following sources:

I. Personnel

Tenure-Track Faculty

▷ Queried from the College of Science Faculty Database. (Fall 2007) Baselines, Title, Gender, Ethnicity, Queried from the College of Science Dean Database (Fall 2008) FacultyList_FINAL.

Non-Tenure-Track Faculty

▷ Provided by the Department (Fall 2007), Queried from the College of Science Dean Database (Fall 2008) FacultyList_nonTTF.

Postdoctoral Fellows

▷ Provided by the Department

Graduate Student/Undergraduate Majors

▷ Office of Institutional Studies and Planning (OISP). (Fall 2007, Fall 2008) Enrollment Profile, Headcount by Major by Level, Fall for [Year].

Support Staff

▷ Provided by the Department

II. Instructional Activities

Graduate Semester Credit Hours/Undergraduate Semester Credit Hours

▷ SCH: Undergraduate and Graduate - Office of Institutional Studies and Planning (OISP). (Fall 2008) SCH Summaries by College for [Semester] [Year].

PhD Degrees/Masters Degrees

▷ Queried from COGNOS and the College of Science Dean Database Degrees_Grad.

Undergraduate Degrees

▷ Queried from COGNOS and the College of Science Dean Database Degrees_Undergrad.

III. Research Activities

Research Publications

▷ Queried from Web of Science® and compiled from the College of Science Dean Database Publications_COUNT.

Research Presentations

▷ As reported by faculty and compiled from the College of Science Dean Database Presentations_COUNT.

Federal/State/University/Private/Industrial/International/Other Government

▷ Gathered from research proposals, research award notices, as reported by faculty, compiled from the College of Science Dean Database, Sec. 7.1 of following department annual report.
# 2.1 Statistical Abstract

## I. Personnel

<table>
<thead>
<tr>
<th></th>
<th>2007</th>
<th>2008</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>a. Tenured and Tenure-Track Faculty</strong></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Professor</td>
<td>30</td>
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</tr>
<tr>
<td>Assistant Professor</td>
<td>9</td>
<td>8</td>
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<tr>
<td>Associate Professor</td>
<td>3</td>
<td>3</td>
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<tr>
<td>Distinguished Professor</td>
<td>5</td>
<td>6</td>
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<tr>
<td><strong>b. Non-Tenure-Track Faculty</strong></td>
<td>19</td>
<td>22</td>
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<tr>
<td>Visiting Professor</td>
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</tr>
<tr>
<td>Visiting Assistant Professor</td>
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<tr>
<td>Visiting Associate Professor</td>
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<tr>
<td>Lecturer</td>
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<tr>
<td>Senior Lecturer</td>
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<td>15</td>
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<tr>
<td><strong>c. Postdoctoral Fellows</strong></td>
<td>69</td>
<td>86</td>
</tr>
<tr>
<td><strong>d. Graduate Majors</strong></td>
<td>261</td>
<td>261</td>
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<tr>
<td><strong>e. Undergraduate Majors</strong></td>
<td>274</td>
<td>270</td>
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<td><strong>f. Support Staff</strong></td>
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## II. Instructional Activities

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<th>2008</th>
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<td><strong>a. Graduate Semester Credit Hours</strong></td>
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<td>5,328</td>
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<td><strong>b. Undergraduate Semester Credit Hours</strong></td>
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<td><strong>c. PhD Degrees</strong></td>
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<tr>
<td><strong>d. Masters Degrees</strong></td>
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<td>9</td>
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<tr>
<td><strong>e. Undergraduate Degrees</strong></td>
<td>41</td>
<td>62</td>
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## III. Research Activities

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<th>2008</th>
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<tbody>
<tr>
<td><strong>a. Research Publications</strong></td>
<td>341</td>
<td>287</td>
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<tr>
<td><strong>b. Research Presentations</strong></td>
<td>279</td>
<td>340</td>
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<tr>
<td><strong>c. Federal</strong></td>
<td>11,365,069</td>
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<td><strong>d. State</strong></td>
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<td>430,272</td>
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<td><strong>e. University</strong></td>
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<tr>
<td><strong>f. Private/Non-Profit</strong></td>
<td>2,510,235</td>
<td>3,400,878</td>
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<td><strong>g. Industrial/Corporate</strong></td>
<td>258,073</td>
<td>108,074</td>
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<tr>
<td><strong>h. International</strong></td>
<td>4,669</td>
<td>83,688</td>
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<tr>
<td><strong>i. Other Govt</strong></td>
<td>61,885</td>
<td>41,200</td>
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<tr>
<td><strong>Total</strong></td>
<td><strong>14,359,241</strong></td>
<td><strong>13,957,668</strong></td>
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</table>
3. Honors & Awards, 2008

By Faculty
▷ This section contains all honors and awards, as reported by individual faculty members, during the calendar year 2008.

By Students
▷ This section contains all honors and awards, as reported by the department, during the calendar year 2008.
## 3.1 Honors & Awards Received by Faculty, 2008

<table>
<thead>
<tr>
<th>Name</th>
<th>Award</th>
</tr>
</thead>
</table>
| D. Bergbreiter| Distinguished Achievement Award - Research, The Association of Former Students  
                 Southwest Regional Award, American Chemical Society                 |
| A. Clearfield | Gallery of Success Award, Temple University                           
                 National Northeast ACS Division Award - Excellence in Academic Research, American Chemical Society |
| D. Goodman    | JoAnn Treat Research Excellence Award, Texas A&M Research Foundation |
| D. Russell    | ALA Innovation Award, LabAutomation                                   |
| J. Sacchettini| Distinguished Achievement Award, Association of Former Students      
                 Patent and Innovation Award, Texas A&M University                  |
| D. Singleton  | Arthur C. Cope Scholar Award, American Chemical Society               
                 Distinguished Achievement Award - Teaching, The Association of Former Students |
| C. Watanabe   | Dreyfus Lectureship Award, American Chemical Society                  |
| S. Yennello   | Distinguished Achievement Award - Teaching, The Association of Former Students |
3.2 Honors & Awards Received by Students, 2008

Undergraduate

▷ Connie G. & Otto F. (Pete) Schumm ’45 Endowed Scholarship in Chemistry
  Kevin Arndt
  Yu Chiu
  Sean Lau
  Jessica Rago

▷ Dow Aggie Endowed Scholarship in Science
  Shaelyn French
  Scott Johnsgard
  Bradley Nolen
  Daniel Sanders

▷ Dr. David W. Lipp ’66 Memorial Endowed Scholarship
  Hannah Cook
  Katherine Popelka
  Randall Suders

▷ Eileen & Harry Lewis Scholarship
  Ivey Royall
  Abby Sisco

▷ Emile A. Schweikert Scholarship in Chemistry
  Clayton Mercer
  Kathy Webb

▷ George C. Bauer Memorial Scholarship for Chemistry Majors
  Helen Hamilton
  Crystal Penaloza

▷ Hach Scientific Foundation
  Whitney Becker
  Sallie Finklea
  Megan Stussi

▷ John L. Hogg Memorial Endowed Scholarship
  Stacey Lehne

▷ Liebhafsky Scholarship
  James Delfeld
  Corbin Gatlin

▷ Sharon Merritt Birtcher Scholarship
  Jessica Hehmann
  Kelli Pearce
  Marissa Proske

▷ Tsutsui Endowed Scholarship
4. Students, 2008

This section contains all degrees awarded, as reported by the department, during the calendar year 2008.
4.1 Graduate Degrees Awarded, 2008

Fall

▷ M.S.

Jun Yong Kang  Synthesis of 5-substituted Isoxazolidines By 3+2+ Cycloaddition of Nitrones Generated in an Unusual way from Nitrosobenzene and Styrene  
Advisor(s): B. Connell

Sandy Marie Lester  Lipoprotein Subclass Analysis by Immunospecific Density Gradient Ultracentrifugation  
Advisor(s): R. Macfarlane

▷ Ph.D.

Yun Cai  In Situ Polarization Modulation Infrared Reflection Absorption Spectroscopic and Kinetic Investigations of Heterogeneous Catalytic Systems  
Advisor(s): D. Goodman

Sung Wook Cho  Total Syntheses of B-lactone Containing Natural Products: Total Synthesis of Belactosin C and Synthetic Studies Toward Spongolactone  
Advisor(s): D. Romo

Kerrie Kathleen Gath  Pt-group Metals and Bimetallic Study: X-ray Photoelectron Spectroscopy And Kinetics  
Advisor(s): D. Goodman

Chayanant Hongfa  Polyisobutylene as a Polymer Support for Homogeneous Catalysis  
Advisor(s): D. Bergbreiter

Todd William Hudnall  Neutral and Cationic Main Group Lewis Acids-synthesis, Characterization and Anion Complexation  
Advisor(s): F. Gabbai

Jeffery Devoyne Johnson  Multi-dimensional Analysis of Hdl: An Approach to Understanding Atherogenic Hdl  
Advisor(s): R. Macfarlane

Candice Gene Jongsma  Investigating Cotranslational Integration of a Multi- Spanning Membrane Protein into the Endoplasmic Reticulum Membrane  
Advisor(s): A. Johnson

Kang-shyang Liao  Polyvalent Surface Modification of Hydrocarbon Polymers Via Covalent Layer-by-layer Self-assembly  
Advisor(s): D. Bergbreiter

Jing Liu  Heterocyclic Small Molecule Peptidomimetics  
Advisor(s): K. Burgess
Blake Anthony McElmurry  A Co-axially Configured Submillimeter Spectrometer and Investigations of Hydrogen Bound Molecular Complexes  
**Advisor(s):** J. Bevan

**Advisor(s):** K. Burgess

Vikram Chandrakant Purohit  Development of Lewis Base Catalyzed Stereoselective Methods for Synthesis Of Beta-lactones and Dyotropic Rearrangements of Tricyclic Beta-lactones  
**Advisor(s):** D. Romo

Stacy Dawn Sherrod  Development of Advanced Optics and High Resolution Instrumentation for Mass Spectrometry Based Proteomics  
**Advisor(s):** D. Russell

Katherine Anne Stumpo  Size-selected 2, 5, and 10 Nm Gold Nanoparticles for Laser Desorption/Ionization Mass Spectrometry  
**Advisor(s):** D. Russell

Lucas Edward Sweet  Synthesis, Structure and Magnetic Properties of Lanthanide Cluster Compounds  
**Advisor(s):** T. Hughbanks

Jianhua Tian  Syntheses and Applications of Soluble Polyisobutylene (pib)-Supported Transition Metal Catalysts  
**Advisor(s):** D. Bergbreiter

Yolanda Vasquez  Low-temperature Solution Synthesis of Alloys And Intermetallic Compounds as Nanocrystals  
**Advisor(s):** R. Schaak

Spring

▷ **M.S.**

Andrea S. Matla  Expanding the Scope of the Nucleophile Catalyzed Aldol Lactonization (ncal) Process and Transformations of the Resulting Beta-lactones  
**Advisor(s):** D. Romo

**Advisor(s):** Y. Gao

▷ **Ph.D.**
Scott Edward Angell  Genomic and Metagenomic Approaches to Natural Product Chemistry  
**Advisor(s):** C. Watanabe

Ching-wen Chiu  Synthesis, Characterization, Anion Complexation and Electrochemistry of Cationic Lewis Acids  
**Advisor(s):** F. Gabbai

Hannah Louise Crampton  Synthesis and Characterization of Melamine-based Dendrimers With Potential Biological Applications  
**Advisor(s):** E. Simanek

Amanda Erin Henkes  Solution-mediated Strategies for Synthesizing Metal Oxides, Borates And Phosphides using Nanocrystals as Reactive Precursors  
**Advisor(s):** R. Schaak

Brian Matthew Leonard  Synthesis and Characterization of Nanocrystalline Binary and Ternary Intermetallic Compounds  
**Advisor(s):** R. Schaak

Timothy Andrew Mitchell  Development of a Tandem, Three-component Synthesis of Tetrahydrofurans Via Silylated Beta-lactone Intermediates in the Tandem Mukaiyama Aldol-lactonization  
**Advisor(s):** D. Romo

Jinjun Shi  Micro/nano-patterning of Supported Lipid Bilayers: Biophysical Studies and Membrane-associated Species Separation  
**Advisor(s):** P. Cremer

Benjamin Alan Vastine  Understanding Mechanisms For C-h Bond Activation and Hydrogen Transfer Reactions: A Theoretical Study  
**Advisor(s):** M. Hall

Shaohui Wang  Synthetic Studies Toward Palau’amine and Enantioselective Total Synthesis of Biogenetically Related (+)-Phakellin and (+)-Monobromophakellin  
**Advisor(s):** D. Romo

Summer

> M.S.

Xuebing Fu  How Trehalose Protects Dna In the Dry State: A Molecular Dynamics Simulation  
**Advisor(s):** Y. Gao

Sara Maria Hallberg  **Advisor(s):** E. Simanek

Ammon Terry Pickett  The Influence of Water on the Degradation and Wear of Al203 Surfaces  
**Advisor(s):** J. Batteas
Christopher Sean Fewox

Ion Exchange Behavior Among Metal Trisilicates

Advisor(s): A. Clearfield

Eric Benjamin Frantz

Synthesis, Reactivity, and Coordination Chemistry Relevant to the Copolymerization of Co2 and Epoxides by First Row Transition Metal Schiff Base Complexes

Advisor(s): D. Darensbourg

Jacqueline Besinaiz Thomas

Mechanistic Investigations into the Origin Of Selectivity in Organic Reactions

Advisor(s): D. Singleton
4.2 Undergraduate Degrees Awarded, 2008

Fall

▷ B.A.

Elizabeth Lutece Adams
Tiffany Chayn Camp
James Marcos Cantu
Jessica Marie Cuccio
Taran Kyle Endsley
Sallie Bess Finklea
Annette Flores
Connie Young-a Kim
Ryan Adam Olbrich
Ana Lisa Ornelas
Marissa Nichole Proske
Christopher Alexander Ruiz
Megan Carol Stussi
Tyler Christian Williams

▷ B.S.

Timothy Kristoffer Bosser
Tara Michele Clover
Jason Adam Denny
Candace C’ne Hayes
Bret Bryan Macha
Clayton Reilly Mercer
Bradley James Nolen
Leah Nicole Salganik

Spring

▷ B.A.

Racquel Jessica Allen
Sarah Jane Banton
Rebekah Ann Condit
John Carr Fullerton
Robert Brandon Hakari
Matthew Jude Hebert
Cory Lynn Henson
Lauren Marie Kulpa
Olivia Denise Lara
Jonathan Tipton Mann
Christina Louise Matz
Diana Laura Medina
Jennifer Marie Nichols
Timothy Charles Picha
Howard Boyd Price
Katherine Anne Spruiell
Emily Durham Townsley
Jessica Marie Trevino
Johnathan Fred Williams
Nathaniel James Young
Crystal Ann Young

▷ B.S.

Bryan Jerry Carroll
Alfredo Enrique Echeverria
Sabrina Ioollaa Fergusson
Daniel Stephen Hitchcock
Jeffrey Mark Karnes
Trevor Arnold Makal
Kelly Marie Martinez
Atashi Mukherjee
Joshua Lee Owen
Nicole Colleen Pearsall
Sandani Samarajeewa
Meghan Stroh
Jessie Lynn Taylor
Thu Ha Truong

Summer

▷ B.A.

Ricardo Norberg Azevedo
Mallory P. Bradsher
Diseye Dorcas Komonibo
Andrew James Lindsey
Alexander Grey Pemba
## 5. Colloquium and Seminar Speakers, 2008

### Frontiers Lecture Series

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<thead>
<tr>
<th>Date</th>
<th>Speaker</th>
<th>Affiliation</th>
<th>Topic</th>
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<tr>
<td>2/11/2008</td>
<td>Vern Schramm</td>
<td>Albert Einstein College of Medicine of Yeshiva University</td>
<td>Enzymatic Transition States and Transition State Analogues</td>
</tr>
<tr>
<td>2/12/2008</td>
<td>Vern Schramm</td>
<td>Albert Einstein College of Medicine of Yeshiva University</td>
<td>Enzymatic Transition States and Transition State Analogues</td>
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<td>2/13/2008</td>
<td>Vern Schramm</td>
<td>Albert Einstein College of Medicine of Yeshiva University</td>
<td>Enzymatic Transition States and Transition State Analogues</td>
</tr>
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<td>2/18/2008</td>
<td>John Hartwig</td>
<td>University of Illinois, Urbana-Champaign</td>
<td>Catalyst Design</td>
</tr>
<tr>
<td>2/19/2008</td>
<td>John Hartwig</td>
<td>University of Illinois, Urbana-Champaign</td>
<td>Catalyst Design</td>
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<tr>
<td>2/20/2008</td>
<td>John Hartwig</td>
<td>University of Illinois, Urbana-Champaign</td>
<td>Catalyst Design</td>
</tr>
<tr>
<td>3/31/2008</td>
<td>Vivian Yam</td>
<td>The University of Hong Kong</td>
<td>Luminescent Metal-Based Molecular Materials</td>
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<td>4/1/2008</td>
<td>Vivian Yam</td>
<td>The University of Hong Kong</td>
<td>Luminescent Metal-Based Molecular Materials</td>
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<td>4/2/2008</td>
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<td>Luminescent Metal-Based Molecular Materials</td>
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<td>4/21/2008</td>
<td>Fleming Crim</td>
<td>University of Wisconsin, Madison</td>
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Chemical Reaction Dynamics in Gases and Liquids

4/22/2008  Fleming Crim  
*University of Wisconsin, Madison*  
Chemical Reaction Dynamics in Gases and Liquids

4/23/2008  Fleming Crim  
*University of Wisconsin, Madison*  
Chemical Reaction Dynamics in Gases and Liquids

9/29/2008  Peter Wipf  
*University of Pittsburgh*  
The Synthetic Chemistry of Indoles

9/30/2008  Peter Wipf  
*University of Pittsburgh*  
The Synthetic Chemistry of Indoles

10/1/2008  Peter Wipf  
*University of Pittsburgh*  
The Synthetic Chemistry of Indoles

10/6/2008  Anthony Watts  
*Oxford University*  
Membrane Bionanotechnology-Methods, Examples and Challenges

10/7/2008  Anthony Watts  
*Oxford University*  
Membrane Bionanotechnology-Methods, Examples and Challenges

10/8/2008  Anthony Watts  
*Oxford University*  
Membrane Bionanotechnology-Methods, Examples and Challenges

10/13/2008  Tadhg Begley  
*Cornell University*  
Thiamin: from Beriberi to Biotechnology

10/14/2008  Tadhg Begley  
*Cornell University*  
Thiamin: from Beriberi to Biotechnology

10/15/2008  Tadhg Begley  
*Cornell University*  
Thiamin: from Beriberi to Biotechnology

10/29/2008  Louis Brus  
*Columbia University*  
Nanocrystals and Nanowires

10/30/2008  Louis Brus  
*Columbia University*  
Nanocrystals and Nanowires

10/31/2008  Louis Brus  
*Columbia University*  

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2008 CHEMISTRY ANNUAL REPORT
Nanocrystals and Nanowires

11/17/2008 **Paul Weiss**  
*Pennsylvania State University*  
Exploring and Controlling the Atomic-Scale World

11/18/2008 **Paul Weiss**  
*Pennsylvania State University*  
Exploring and Controlling the Atomic-Scale World

11/19/2008 **Paul Weiss**  
*Pennsylvania State University*  
Exploring and Controlling the Atomic-Scale World

12/1/2008 **Ian Manners**  
*University of Bristol*  
Functional Polymeric and Supramolecular Materials Containing Metals and Main Group Elements

12/2/2008 **Ian Manners**  
*University of Bristol*  
Functional Polymeric and Supramolecular Materials Containing Metals and Main Group Elements

12/3/2008 **Ian Manners**  
*University of Bristol*  
Functional Polymeric and Supramolecular Materials Containing Metals and Main Group Elements
Seminar Speakers

1/11/2008  Matthew Champion  
*Applied Biosystems*  
Molecular Biology by Other Means: Quantitative Proteomics of Protein Secretion from M. tuberculosis Reveal Mechanisms of Virulence Factor Secretion

1/11/2008  William Hildebrand  
*University of Oklahoma Health Sciences Center*  
Peptide Epitopes that Distinguish Virus-Infected and Cancerous Cells

1/11/2008  Scott McLuckey  
*Purdue University*  
Recent Developments in Ion/Ion Chemistry for Bioanalysis

1/28/2008  Oleg Ozerov  
*Brandeis University*  
Adventures in Unsaturation: In and Out of the Transition Metal Series

2/4/2008  Gavin Reid  
*Michigan State University*  
Global Lipid Profiling to Discover Biomarkers of Diabetic Complications

2/6/2008  John Stanton  
*University of Texas, Austin*  
How Accurate Can Theoretical Thermochemistry get?

2/6/2008  Doug Stephan  
*The University of Toronto*  
Frustrated Lewis Pairs: From Uniqu Reactivity to Metal Free Catalytic Hydrogenation

2/8/2008  Joseph DeSimone  
*University of North Carolina at Chapel Hill*  
Engineered Drug Therapies Enabled by Fabrication Processes from the Electronics Industry

2/13/2008  Bruce Gibb  
*University of New Orleans*  
Unusual Phenomena Arising Through Molecular Encapsulations Induced by the Hydrophobic Effect

2/21/2008  Shmaryaha Hoz  
*Bar-Ilan University, Israel*  
Mechanics of Molecular Rods

2/21/2008  Yi Lu  
*University of Illinois, Urbana-Champaign*  
New Metallo-DNAzymes: from Fundamental Insights into Metal-binding Sites in Nucleic Acids to Practical Applications in Sensing, Imaging and Nanotechnology

2/28/2008  Zlatko Bacic  
*University of New York*  
Quantum Dynamics of Molecules in Confined Geometries: Molecular Hydrogen Inside Clathrate Hydrates and Fullerenes
2/28/2008  David Graham  
*University of Texas*
Convergent Evolution in Microbial Biosynthesis

2/29/2008  Patrick Farmer  
*University of California, Irvine*
The Biocoordination Chemistry and Reactivity of HNO

3/4/2008  Rob Coalson  
*University of Pittsburgh*
Understanding and Controlling the Function of Biological Ion Channels using Molecular Modeling Techniques

3/5/2008  Bill Connick  
*University of Cincinnati*
Platinum and Palladium Two-Electron Transfer Reagents

3/10/2008  M. Gruselle  
*Universit Pierre et Marie Curie*
Magnetochival Effect in Molecule-Based Optically Active Magnets

3/20/2008  Lin He  
*North Carolina State University*
Enriching the Analytical Toolbox with Nanomaterials-by-Design

3/20/2008  Wei Wang  
*University of New Mexico*
Organocatalytic Enantioselective Cascade Reactions

3/24/2008  Sarah Flores  
Biomolecular Motors and Their Applications

3/25/2008  Shaul Mukamel  
*University of California, Irving*
Coherent Multidimensional Optical Spectroscopy of Excitons in Biological Complexes: From NMR to X-Rays

3/25/2008  Patricia Thiel  
*Iowa State University*
Additive-Induced Mass Transport on Metal Surfaces: Hunting Elusive Agents of Change

3/26/2008  Hung-wen Liu  
*University of Texas*
Mechanistic Studies of Novel Enzyme Catalysis

3/26/2008  Erik Sorensen  
*Princeton University*
Rapid Formation of Molecular Complexity in Natural Product Synthesis

3/26/2008  Chi-Huey Wong  
*Academia Sinica, Taiwan*
Post-Translational Glycosylation: Challenges and Opportunities

3/27/2008  Barney Ellison  
SEC. 5.  
COLLOQUIUM AND SEMINAR SPEAKERS  
161
University of Colorado
Reaction of Dynamics Atmospheric Pernitrites: Spectroscopic Detection
4/3/2008  Squire Booker
Penn State University
Taking a hit for the Team: Self-Sacrifice as an Enzymastic Strategy in the Biosynthesis of Lipoic Acid

4/4/2008  Hao Yan
Arizona State University
Design DNA Architectures for Nanobiotechnology

4/8/2008  Abraham Clearfield
Texas A&M University
Nuclear Chemistry and Dirty Bombs

4/10/2008  Emrah Ozensoy
Bilkent University, Turkey
Model Catalyst Studies on NOx-Storage-Reduction Catalysts

4/10/2008  John Richard
The State University of New York, Buffalo
The Role of Flexible Protein Looper in Enzymatic Catalysis

4/11/2008  Darren Johnson
University of Oregon
Main Group Supramolecular Coordination Chemistry

4/14/2008  Rainer Streubel
University of Bonn, Germany
Phosphinidenoid Complexes - A Recent Breakthourgh in Reactive Intermediates Chemistry

4/15/2008  Jiali Gao
University of Minnesota
Free Energies, Reaction Coordinates and Mechanisms of Enzymatic Reactions by Computation

4/15/2008  John Gladysz
Texas A&M University
Novel New Approaches to (Catalyst) Recovery, Remediation, and Rapid Reaction Sequences Involving Fluorous Phases

4/16/2008  Allen Bard
University of Texas
Probing Interfaces in Liquids by High Resolution Electrochemistry with the SCanning Electrochemical Microscope

4/17/2008  Wes Borden
University of North Texas
Purely Experimental Indications of Tunneling in Organic and Organometallic Reactions - Calculations Tell Experimentalists Where to Look and What to Look for

4/23/2008  Jorge Colon
University of Puerto Rico
Artificial Photosynthesis, Biosensors, and Vapochromic Materials using Layered Inorganic Nanomaterials

4/24/2008  Zoltan Schelly  
*University of Texas, Arlington*  
Electro-optics, Electroporation, Liposomes, and Uncapped Quantum Dots

4/29/2008  Mark Johnson  
*Yale University*  
Trapping Protons and Electrons on Little Chunks of Water: Using Size-Selected Cluster Ions to Capture Molecular Level Aspects of Water at Work

5/1/2008  Keith Fagnou  
*University of Ottawa*  
Avoiding Substrate Pre-Activation in C-C Bond Formation

5/7/2008  Joseph Templeton  
*University of North Carolina, Chapel Hill*  
Modeling Intermediates in C-H Activation with Tp Pt Reagents

5/16/2008  Abhaya Datye  
*University of New Mexico*  
Nanoporous Architectures for Self-Healing Au Catalysts

5/16/2008  Robert Davis  
*University of Virginia*  
Gold-Catalyzed Oxidation Reactions in Liquid Water

5/16/2008  Bruce Gates  
*University of California, Davis*  
Catalysis by Highly Dispersed Supported Gold: Evidence of Catalysis by Isolated Gold Cations and by Gold Nanoclusters

5/16/2008  Wayne Goodman  
*Texas A&M University*  
Morphology of the Active Site: From Au Clusters to Au Films

5/16/2008  Chris Kiely  
*Lehigh University*  
Aberration Corrected Analytical Electron Microscopy Studies of Gold-based Catalysts

5/16/2008  Uzi Landman  
*Georgia Institute of Technology*  
Control of Dimensionality, Structure, and Reactivity of Gold Nanocatalysts: 2-D or not 2-D?

5/16/2008  Jose Rodriguez  
*Brookhaven National Laboratory*  
The Water-Gas Shift on Gold-Oxide Catalysts: Active Sites and Reaction Mechanism

6/5/2008  Raymond Ziessel  
*Université Louis Pasteur*  
Chemistry at the Boron of Fluorescent Dyes: Past, Present and Beyond
<table>
<thead>
<tr>
<th>Date</th>
<th>Name</th>
<th>Institution</th>
<th>Title</th>
</tr>
</thead>
<tbody>
<tr>
<td>6/24/2008</td>
<td>Ramesh Jagannathan</td>
<td>Kodak Research Laboratories</td>
<td>Nanofluids and Molecular Clusters Self-Assembled Thin Films</td>
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<tr>
<td>6/25/2008</td>
<td>Christine Hahn</td>
<td>University of Texas, Permian Basin</td>
<td>Electrophilic Organopalladium(II) and -Platinum(II) Complexes and Application in C-C, C-N, C-O Bond Formations</td>
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<tr>
<td>6/27/2008</td>
<td>Simon Aldridge</td>
<td>University of Oxford</td>
<td>Group 13 Analogues of Classical Organometallic Ligands</td>
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<tr>
<td>7/24/2008</td>
<td>Haw Yang</td>
<td>University of California, Berkeley</td>
<td>Elucidating the Mechanistic Roles of Protein Conformational Dynamics and New Directions in Single- Molecule Spectroscopy</td>
</tr>
<tr>
<td>8/8/2008</td>
<td>Pavel Jungwirth</td>
<td>Academy of Sciences, Czech Republic</td>
<td>Ions at Surfaces of Hydrated Proteins and Other Interfaces</td>
</tr>
<tr>
<td>9/4/2008</td>
<td>Douglas Frantz</td>
<td>University of Texas Southwestern Medical Center</td>
<td>Quantitative Analytical Organic Chemistry as a Powerful Approach to Reaction Development</td>
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<tr>
<td>9/4/2008</td>
<td>Jack Kirsch</td>
<td>University of California, Berkeley</td>
<td>Directed Evolution and Rational Design Approaches to Shifting Enzyme Paralog Function</td>
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<td>9/9/2008</td>
<td>Catherine Murphy</td>
<td>University of South Carolina</td>
<td>Three Short Stories About Gold Nanorods</td>
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<td>9/11/2008</td>
<td>Nigel Richards</td>
<td>University of Florida</td>
<td>The Chemistry of Mn(II)-Dependent Oxalate-Degrading Enzymes</td>
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<td>9/18/2008</td>
<td>Jeff Bode</td>
<td>University of Pittsburgh</td>
<td>Reinventing Amide-Bond Formation</td>
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<tr>
<td>9/25/2008</td>
<td>Anthony Legon</td>
<td>University of Bristol</td>
<td>Is the Hydrogen Bond Unique? A Case for Invoking a Halogen Bond in Complexes B· ·ClF</td>
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<tr>
<td>10/1/2008</td>
<td>Alan Goldman</td>
<td>Rutgers University</td>
<td></td>
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</tbody>
</table>
Transition-Metal-Catalyzed C-H Bond Activation, Alkane Dehydrogenation, and Formation of C-C Bonds  
10/2/2008 **M.D. Barnes**  
*University of Massachusetts, Amherst*  
Chemical Microscopy of Novel Nanostructures: What Can You Learn From A Handful of Photons...  

10/9/2008 **Abby Bickley**  
*Michigan State University*  
What Can Nuclear Collisions Tell us About the Forces Influencing the Nucleus?  

10/17/2008 **Tien-Yau Luh**  
*National Taiwan University*  
Double-Stranded DNA-like Polymers  

10/21/2008 **Paul Barbara**  
*University of Texas, Austin*  
Organic Materials Have Bias-EEformable Electronic Properties on the Nanoscale  

10/22/2008 **Gregory Robinson**  
*University of Georgia*  
Counterintuitive Chemistry: An Eclectic Collection of Provocative Molecules  

11/2/2008 **Daniel Raftery**  
*Purdue University*  
Metabolomics-Based Methods for Biomarker Discovery and Systems Biology Research  

11/4/2008 **Teri Odom**  
*Northwestern University*  
Pyramids: A Unique Platform for Creating Multifunctional Nanomaterials  

11/5/2008 **Slavi Sevov**  
*University of Notre Dame*  
Synthesis, Structure, Oligomerization, and Functionalization  

11/12/2008 **Thomas Brunold**  
*University of Wisconsin*  
Spectroscopic and Computational Insights into the Biosynthesis and Reactivity of Coenzyme B12 (Adenosylcobalamin)  

11/20/2008 **Daniel Raftery**  
*Purdue University*  
Metabolomics-Based Methods for Biomarker Discovery and Systems Biology Research  

11/20/2008 **Timothy Stemmler**  
*Wayne State University*  
Frataxin, an Iron Taxi on the Road to Cellular Fe-S Bioassembly
6. Faculty, 2008

David P. Barondeau ........................................ Assistant Professor
James D. Batteas ........................................ Associate Professor
David E. Bergbreiter ....................................... Professor
John W. Bevan ............................................... Professor
Janet F. Bluemel ........................................... Professor
Lawrence S. Brown ........................................ Senior Lecturer
Kevin Burgess ............................................... Professor
Abraham Clearfield ........................................ Distinguished Professor
Brian T. Connell ........................................... Assistant Professor
Paul S. Cremer ............................................. Professor
Donald J. Darenbourg ..................................... Professor
Marcetta Y. Darenbourg ................................... Professor
Kim R. Dunbar ............................................. Distinguished Professor
John P. Fackler ............................................. Distinguished Professor Emeritus (A)
Paul Fitzpatrick ........................................... Professor (J)
Francois P. Gabbai ......................................... Professor
Holly C. Gaede ............................................... Senior Lecturer
Yi Qin Gao .................................................. Assistant Professor
John A. Gladysz ............................................ Distinguished Professor
D. Wayne Goodman ......................................... Distinguished Professor
Ganesa Gopalakrishnan .................................... Senior Lecturer
Michael B. Hall ............................................ Professor
Kenn E. Harding ........................................... Professor
Dudley Herschbach ......................................... Professor (J)
Christian B. Hilty .......................................... Assistant Professor
John L. Hogg ............................................... Professor
Timothy R. Hughbanks .................................... Professor
Marian Hyman ............................................... Professor
Farah Javid-Majd ........................................... Lecturer
Arthur E. Johnson ......................................... Distinguished Professor (J)
Wendy Keeney-Kennicutt ................................ Senior Lecturer
Jaan Laane .................................................. Professor
Sanjiv K. Lalwani .......................................... Lecturer
Paul A. Lindahl ............................................ Professor
Wenshe Liu .................................................. Assistant Professor
Robert R. Lucchese ........................................ Professor
Ronald D. Macfarlane .................................... Distinguished Professor
Elmo J. Mawk ............................................... Senior Lecturer
Stephen A. Miller .......................................... Assistant Professor
Christine A. Mullen ........................................ Senior Lecturer
Carlos A. Murillo .......................................... Senior Lecturer
Joseph B. Natowitz ....................................... Distinguished Professor
Simon W. North ........................................... Professor
Joanna G. Pellois .......................................... Senior Lecturer
James D. Pennington ..................................... Senior Lecturer
Krishan Ponnampalam ..................................... Lecturer
Gerd W. Rabe ............................................... Senior Lecturer

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<table>
<thead>
<tr>
<th>Name</th>
<th>Title</th>
</tr>
</thead>
<tbody>
<tr>
<td>Frank M. Raushel</td>
<td>Professor</td>
</tr>
<tr>
<td>Daniel Romo</td>
<td>Professor</td>
</tr>
<tr>
<td>Michael P. Rosynk</td>
<td>Professor</td>
</tr>
<tr>
<td>Marvin W. Rowe</td>
<td>Professor</td>
</tr>
<tr>
<td>David H. Russell</td>
<td>Professor</td>
</tr>
<tr>
<td>James C. Sacchettini</td>
<td>Professor (J)</td>
</tr>
<tr>
<td>Patricio Santander</td>
<td>Lecturer</td>
</tr>
<tr>
<td>Raymond E. Schaak</td>
<td>Associate Professor</td>
</tr>
<tr>
<td>Emile A. Schweikert</td>
<td>Professor</td>
</tr>
<tr>
<td>Marlan O. Scully</td>
<td>Professor (J)</td>
</tr>
<tr>
<td>Eric E. Simanek</td>
<td>Professor</td>
</tr>
<tr>
<td>Daniel A. Singleton</td>
<td>Professor</td>
</tr>
<tr>
<td>Dong Hee Son</td>
<td>Assistant Professor</td>
</tr>
<tr>
<td>Elizabeth Soriaga</td>
<td>Senior Lecturer</td>
</tr>
<tr>
<td>Manuel P. Soriaga</td>
<td>Professor</td>
</tr>
<tr>
<td>Earle G. Stone</td>
<td>Professor</td>
</tr>
<tr>
<td>Megan Tichy</td>
<td>Lecturer</td>
</tr>
<tr>
<td>Tammy H. Tiner</td>
<td>Senior Lecturer</td>
</tr>
<tr>
<td>Gyula Vigh</td>
<td>Professor</td>
</tr>
<tr>
<td>Coran M.H Watanabe</td>
<td>Associate Professor</td>
</tr>
<tr>
<td>Rand L. Watson</td>
<td>Professor</td>
</tr>
<tr>
<td>Robert D. Wells</td>
<td>Professor (J)</td>
</tr>
<tr>
<td>Vickie M. Williamson</td>
<td>Senior Lecturer</td>
</tr>
<tr>
<td>Jiong Yang</td>
<td>Assistant Professor</td>
</tr>
<tr>
<td>Danny L. Yeager</td>
<td>Professor</td>
</tr>
<tr>
<td>Sherry J. Yennello</td>
<td>Professor</td>
</tr>
<tr>
<td>Renyi Zhang</td>
<td>Professor (J)</td>
</tr>
<tr>
<td>Yanjie Zhang</td>
<td>Lecturer</td>
</tr>
<tr>
<td>Hong-cai Zhou</td>
<td>Professor</td>
</tr>
</tbody>
</table>

*For the Annual Report, Faculty are defined as tenure and non-tenure track employees who were employed at any time during 2008 (01/01/2008-12/31/2008).*
6.1 Professional Activities, 2008

This section contains information, as reported by individual faculty members, encompassing each faculty member’s professional activities for the calendar year 2008.

Subsections of professional activities are defined as follows:

Honors and Awards
▷ All professional honors and awards, both internal and external.

Service Activities
▷ All professional service and leadership roles, including: departmental, college, university, state, national and international.

Teaching
▷ Classes taught during the Spring, Summer and Fall sessions of 2008.
▷ Any missing enrollment numbers were gathered from the Student Information Management System (SIMS) at Texas A&M University.

Research Projects
▷ All research projects, funded and unfunded.
▷ Whenever possible, all research-related employees of that faculty member are listed along with the citation. Key for employees: (P)=Postdoc, (G)=Graduate Student, (U)=Undergraduate Student.
▷ Renewals are marked by “(REN)” at the beginning of their title.
▷ Unfunded grants are marked by “(UNFUNDED)” at the end of the citation.
▷ Additional information (including PIs, CoPIs, and funding) on all funded grants are listed in Section 6.

Presentations
▷ All posters, invited and contributed lectures (plenary, conferences, colloquia, seminars, etc.).
▷ Whenever reported, posters, invited and contributed lectures are noted in parentheses following the citation.
▷ Citations are in chronological order.

Publications
▷ All printed materials published during 2008.
▷ Pre-press, in-press and submitted publications were not included.
▷ Citations were formatted in APA Style and are in alphabetical order by lead author.
• SERVICE DURING 2008

National
▷ Professional Affiliation: American Chemical Society (Treasurer)

University
▷ Service Position: Molecular Biophysics Training Program; Chemistry-Biology Interface Training Program (Mentor)

Department
▷ Committee/Panel: Information and Communications Technology; Graduate Curriculum (Representative)

• TEACHING ASSIGNMENTS DURING 2008

Spring
▷ BICH 691. — Research (total enrollment: 1)
▷ CHEM 491. — Research (total enrollment: 2)
▷ CHEM 628 — Coordination and Bioinorganic Chemistry (total enrollment: 8)
▷ CHEM 689. — Special Topics in (total enrollment: 12)
▷ CHEM 691. — Research (total enrollment: 3)

Summer
▷ BICH 691. — Research (total enrollment: 1)
▷ CHEM 691. — Research (total enrollment: 5)

Fall
▷ BICH 691. — Research (total enrollment: 1)
▷ CHEM 627. — Principles of Biological Chemistry (total enrollment: 21)
▷ CHEM 691. — Research (total enrollment: 5)

• RESEARCH PROJECTS DURING 2008

Private
▷ Protein Self-Modification Reaction Mechanisms, *The Robert A. Welch Foundation*, coworkers: J. Bridwell (G), C. Tsai (G)

• PRESENTATIONS DURING 2008


“Quinone Binding to the Circadian Input Pathway of S. elongatus,” CBI Conference, College Station, TX, August, 2008.(Poster Individual)

“Temporal Trapping of Intermediates in RFP Chromophore Synthesis,” CBI Conference, College Station, TX, August, 2008.(Poster Individual)


• PUBLICATIONS DURING 2008

Shin; Didonato; Barondeau, D.; Hura; Hitomi; Berglund; Getzoff; Cary; Tainer. (November 2008) Superoxide Disumtase from the Eukaryotic Thermophile Alvinella pompejana: Structures, Stability, Mechanism, and Insights into Amyotrophic Lateral Sclerosis Journal of Molecular Biology.
• ADDITIONAL UNIVERSITY TITLES HELD DURING 2008
  ▶ Member, Interdisciplinary Faculty, Materials Science and Engineering, [2006]

• SERVICE DURING 2008
  National
  ▶ Professional Affiliation: American Chemical Society (Chair)
  ▶ Advisory Board: Polymer Analysis Division, Society of Plastic Engineers (Board of Directors)

  University
  ▶ Committee/Panel: CIMS-Materials Characterization Facility Advisory Committee (Chair), Microscopy Center Advisory Committee (Member)

  Department
  ▶ Committee/Panel: Faculty Search Committee - Analytical (Member), Graduate Admissions and Review Committee (Member), Graduate Admissions and Review Committee (Chair), Graduate Recruiting (Coordinator), Shops Committee (Member)

• TEACHING ASSIGNMENTS DURING 2008
  Spring
  ▶ CHEM 315. — Quantitative Analysis (total enrollment: 16)
  ▶ CHEM 318. — Quantitative Analysis Laboratory (total enrollment: 21)
  ▶ CHEM 491 — Research (total enrollment: 1)
  ▶ CHEM 602 — Analytical Chemistry II (total enrollment: 11)
  ▶ CHEM 691. — Research (total enrollment: 6)

  Summer
  ▶ CHEM 491 — Research (total enrollment: 1)
  ▶ CHEM 691. — Research (total enrollment: 6)

  Fall
  ▶ CHEM 107. — General Chemistry for Engineering Students (total enrollment: 240)
  ▶ CHEM 491. — Research (total enrollment: 1)
  ▶ CHEM 691. — Research (total enrollment: 8)

• RESEARCH PROJECTS DURING 2008
  Federal
  ▶ Probing the Role of Surface Defects and Disorder on the Tribiology of Nanoscopic Contacts, National Science Foundation
REU Site: Biological, Environmental, and Materials Chemistry Research at Texas A&M University, National Science Foundation

State

- Fueling the Hydrogen Economy: Catalytic Approaches to Hydrogen, Energy Resources Program
- Scanned Probe Lithography Approaches for the Fabrication of Plasmon Enhanced Quantum Optics, Texas Higher Education Coordinating Board

Private

- Probing Molecular Interactions and Defect Nucleation in Nanoscopic Contacts, The Robert A. Welch Foundation, coworkers: R. Jones (U), N. Pearsall (U)

• PRESENTATIONS DURING 2008

- “Our Universe,” Harvey Mitchell’s Science Night Program, Harvey Mitchell Elementary School, Bryan, TX, January, 2008. (Graduate, R. Jones)
- “Evaporation-Induced Assembly of Quantum Dots into Nanorings,” Student Research Week, College Station, TX, March, 2008. (Poster Graduate, J. Chen)
- “FTIR and AFM Studies of Organosilane Self-Assembled Monolayers in Silica Asperity-Asperity Junctions,” Texas A&M Student Research Week, College Station, TX, March, 2008. (Poster Graduate, R. Jones)
- “Probing Molecular Assembly and Molecular Conduction in Confined Geometries,” University of California, Davis, CA, March, 2008. (Invited)
- “Using Patterned Arrays of Metal Nanoparticles to Probe Plasmon Enhanced Luminescence of CdSe Quantum Dots on GaAs,” Student Research Week, College Station, TX, March, 2008. (Poster Graduate, Y. Chan)
- “Chemistry in Confined Geometries,” Priestly Medal Award Symposium, American Chemical Society Meeting, April, 2008. (Invited)
- “Electron Transport through Thiol Tethered Porphyrin Derivatives on Gold,” 235th National American Chemical Society Meeting, April, 2008. (Graduate, A. Schuckman)
- “Molecular Conduction in Confined Geometries,” Central Michigan University, Mount Pleasant, MI, April, 2008. (Invited)
- “So You Think You Want to go to Graduate School? Grad School Reality Check,” 235th National American Chemical Society Meeting, April, 2008. (Invited)
- “Surface and Interfacial Studies of Plant Cuticular Membranes,” 235th National American Chemical Society Meeting, April, 2008. (Poster Graduate, A. Pravitsari)
“Using Patterned Arrays of Metal Nanoparticles to Probe Plasmon Enhanced Luminescence of CdSe Quantum Dots on GaAs,” 25th National American Chemical Society Meeting, April, 2008. (Poster Graduate, Y. Chan)


“Conduction in Confined Molecular Assemblies,” Texas A&M University, Physics Department Condensed Matter Seminars, College Station, TX, November, 2008. (Invited)

“Our Universe,” Neal’s Science Night Program, Neal Elementary School, Bryan, TX, November, 2008. (Graduate, R. Jones)

“Using Patterned Arrays of Metal Nanoparticles to Probe Plasmon Enhanced Luminescence of CdSe Quantum Dots on GaAs,” Materials Characterization Facility Open House Texas A&M University, College Station, TX, November, 2008. (Poster Graduate, Y. Chan)

“Microscopes,” Independent School District as Part of the NSF GK-12 Program, Bryan, TX, December, 2008. (Graduate, R. Jones)

“Our Universe,” Bowen’s Science Night Program, Bowen Elementary School, Bryan, TX, December, 2008. (Graduate, R. Jones)

“Soft Lithographic Approaches to Patterning of Optoelectronics,” Fall MRS Meeting, December, 2008. (Contributed)

• PUBLICATIONS DURING 2008


DAVID E. BERGBREITER

PROFESSOR (979) 845-3437
CHEM-Organic Chemistry bergbreiter@mail.chem.tamu.edu

- CHAIRS/PROFESSORSHIPS
  - Eppright Professorship in Undergraduate Teaching Excellence [2002]
  - Presidential Professor for Teaching Excellence [2006]

- ADDITIONAL UNIVERSITY TITLES HELD DURING 2008
  - Member, Interdisciplinary Faculty, Materials Science and Engineering, [2004]

- AWARDS DURING 2008
  - National
    - Southwest Regional Award, American Chemical Society
  - University
    - Distinguished Achievement Award - Research, The Association of Former Students

- SERVICE DURING 2008
  - International
    - Editorial/Board: Chemistry Conference Advisory Board, Canada (Advisory Board)
  - National
    - Professional Affiliation: American Chemical Society (Councilor)
    - Editorial/Board: Advisory Board IUPAC Polymers in Organic (Review: Proposals), *Macromolecules* Advisory Board (Advisory Board)
    - Committee/Panel: American Chemical Society’s Joint Board/Council Committee (Member)
  - Department
    - Committee/Panel: Awards Committee (Member), Faculty Teaching Academy (Member), Promotion and Tenure Committee (Member)

- TEACHING ASSIGNMENTS DURING 2008
  - Spring
    - CHEM 491. — Research (total enrollment: 2)
    - CHEM 610. — Organic Reactions (total enrollment: 17)
    - CHEM 691. — Research (total enrollment: 7)
  - Summer
    - CHEM 691. — Research (total enrollment: 7)
  - Fall
    - CHEM 227.(H) — Organic Chemistry I (total enrollment: 51)
CHEM 289 — Special Topics in (total enrollment: 12)
CHEM 691. — Research (total enrollment: 6)

- RESEARCH PROJECTS DURING 2008

Federal
- Designing New Soluble Polymers to Facilitate Separations and Reactions, National Science Foundation, coworkers: H. Koizumi (Research Scientist), H. Fu (P), H. Chayanant (G), S. Haw-Lih (G), C. Hobbs (G), L. Kang-Shyang (G), J. Tian (G), Y. Yang (G)

Private
- Synthesis, Characterization and Applications of Novel Lipophilic Metathesie Catalysts, Qatar National Research Fund, coworkers: C. Hobbs (G), C. Hongfa (G), H. Su (G)
- Phase Facilitated Catalysis and Synthesis, The Robert A. Welch Foundation, coworkers: H. Fu (G), C. Hobbs (G), K. Liao (G), H. Su (G), J. Tian (G), Y. Yang (G)

- PRESENTATIONS DURING 2008

- “Polyisobutylene supported NHC carbenes,” 235th ACS National Meeting, New Orleans, LA, April, 2008. (Graduate, C. Hongfa)
- “Using Polymers to Facilitate Catalyst/Product Separations,” IUPAC Conference on Green Chemistry, Moscow, Russia, September, 2008. (Individual)
- “Designing Homogeneous, Recoverable, Recyclable Ruthenium Ring-closing Metathesis Catalysts,” 64th American Chemical Society Southwest Regional Meeting, Houston, TX, October, 2008. (Graduate, C. Hongfa)
- “Electrophilic Substitution of Phenols by Polyisobutylene as a Route to Recoverable, Recyclable Ligands for Homogeneous Catalysts,” 64th American Chemical Society Southwest Regional Meeting, Houston, TX, October, 2008. (Graduate, C. Hobbs)
- “Heptane-Soluble NHCs and NHC Complexes,” 64th American Chemical Society Southwest Regional Meeting, Houston, TX, October, 2008. (Individual)
- “Smart Polymers: Teaching Molecules to Stay, Go, and Fetch,” The Chevron Lecture Series at Texas A&M, College Station, TX, October, 2008. (Individual)
- “Strategies for Teaching Sophomores Organic Chemistry,” Texas A&M Faculty Teaching Academy, College Station, TX, October, 2008. (Individual)

- PUBLICATIONS DURING 2008


• CHAIRS/PROFESSORSHIPS
  ▶ Davidson Chair in Science [2005]

• SERVICE DURING 2008
  University
  ▶ Service Position: Executive Committee for Atmospheric Chemistry and the Environment, Texas A&M University (Director), Laboratory for Submillimeter/THz Science and Technology (Director)
  Department
  ▶ Research Group: Physical and Nuclear Chemistry Division (Alternate Member)
  ▶ Committee/Panel: Departmental Advisory Council (Alternate Member), Faculty Recruitment Committee - Analytical (Member), Faculty Recruitment Committee - Physical - Nuclear (Member)

• TEACHING ASSIGNMENTS DURING 2008
  Spring
  ▶ CHEM 322. — Physical Chemistry for Engineers (total enrollment: 35)
  ▶ CHEM 491. — Research (total enrollment: 2)
  ▶ CHEM 691. — Research (total enrollment: 3)
  Summer
  ▶ CHEM 327. — Physical Chemistry (total enrollment: 47)
  ▶ CHEM 691. — Research (total enrollment: 3)
  Fall
  ▶ CHEM 327. — Physical Chemistry (total enrollment: 36)
  ▶ CHEM 491 — Research (total enrollment: 2)
  ▶ CHEM 691. — Research (total enrollment: 3)

• RESEARCH PROJECTS DURING 2008
  Federal
  ▶ Development of Submillimeter/Terahertz Instrumentation for Spectroscopy and Dynamics, National Science Foundation, coworkers: Z. Wang (P), S. Belov (G), B. McElmurry (G), R. Zhang (G)
  ▶ Spectroscopic and Computational Characterization of Non-Covalent Interactions, National Science Foundation
  ▶ Elaboration of Analytical methods in THz Frequency Range for Atmospheric Investigations, U.S. Civilian Research and Development Foundation
Private
▷ (REN) The Structure and Dynamics of Prototypical Hydrogen-Bonded Interactions, *The Robert A. Welch Foundation*

- **PRESENTATIONS DURING 2008**
  ▷ “Recent Results from Generating Morphled Potentials in Vander Waals and Hydrogen Bonded Interactions,” International Conference on Molecular Structure, Austin, TX, March, 2008.( Individual)
  ▷ “Characterization of Non-Covalent Intergate Through Potential Morphling,” Latsis Conference, Zurich, Switzerland, September, 2008.( Individual)

- **PUBLICATIONS DURING 2008**
• SERVICE DURING 2008

International
▷ Editorial/Board: Bergen Research Foundation (Review: Proposals)

National
▷ Event: NSF Summer School CENTC (Participant), NSF Summer School CENTC (Lecturer), NSF Workshop (Participant), NSF Workshop (Lecturer)
▷ Editorial/Board: National Science Foundation Panel on Major Research Instrumentation (Review: Proposals), Various Manuscripts for Journals (Review: Proposals)
▷ Committee/Panel: National Science Foundation (Member)

Department
▷ Committee/Panel: Information and Communications Technology (ICT) Committee (Member)

• TEACHING ASSIGNMENTS DURING 2008

Spring
▷ CHEM 618. — NMR Spectroscopy (total enrollment: 9)
▷ CHEM 691. — Research (total enrollment: 3)

Summer
▷ CHEM 691. — Research (total enrollment: 1)

Fall
▷ CHEM 462. — Inorganic Chemistry (total enrollment: 11)
▷ CHEM 691. — Research (total enrollment: 1)

• PRESENTATIONS DURING 2008

▷ “Homogeneous Gold Catalysts Immobilized on Oxide Supports via Rigid Linkers,” Symposium on Recent Advances in Catalysis by Gold, Texas A&M University, College Station, TX, May, 2008.( Individual)

“Catalysts Immobilized on Oxide Supports: A Solid-State NMR Study,” Department of Chemistry, Texas A&M University, College Station, TX, June, 2008. (Invited)


“Catalysts Immobilized on Oxide Supports: A Solid-State NMR Study,” AP Chemistry Institute, Texas A&M University, College Station, TX, July, 2008. (Invited)


“HRMAS Solid-State NMR Spectroscopy of Modified and Polymer-Coated Silica,” Polymer Technology Industrial Consortium Meeting of the Polymer Technology Center (PTC), Department of Mechanical Engineering, Texas A&M University, College Station, TX, October, 2008. (Poster Graduate, B. Beele)


“Inorganic-Organic Hybrid Materials and Olefin Polymerization Catalysts: A Solid–State NMR Study,” Polymer Technology Industrial Consortium Meeting of the Polymer Technology Center (PTC), Department of Mechanical Engineering, Texas A&M University, College Station, TX, October, 2008. (Invited)

**PUBLICATIONS DURING 2008**


• SERVICE DURING 2008

University
▶ Service Position: Chemistry Coordinator TAMU-Qatar (Coordinator)

College
▶ Committee/Panel: Qatar Advisory Committee (Member)

Department
▶ Service Position: Chemistry 107 (Coordinator)

• TEACHING ASSIGNMENTS DURING 2008

Spring
▶ CHEM 325. — Physical Chemistry Laboratory I (total enrollment: 40)

Fall
▶ CHEM 107. — General Chemistry for Engineering Students (total enrollment: 502)
▶ CHEM 111. — Fundamentals of Chemistry Laboratory I (total enrollment: 45)
▶ CHEM 697. — Methods in Teaching Chemistry Laboratory (total enrollment: 7)

• PUBLICATIONS DURING 2008

• **CHAIRS/PROFESSORSHIPS**
  - Rachal Professorship in Chemistry [2004]

• **SERVICE DURING 2008**

  **International**
  - Service Position: L’Oreal in France (Consultant)
  - Editorial/Board: Hong Kong Universities (Review: Proposals)

  **National**
  - Service Position: Combimix, San Francisco, CA (Consultant), Three Legal Cases (Expert Witness)
  - Event: American Chemical Society Meeting for the Awards Symposia (Organizer)
  - Committee/Panel: NIH Study Section on Molecular Imaging (Member), NIH Synthetic and Biological Chemistry Review Panel (Member)

  **State**
  - Service Position: Southwestern Medical School (Consultant)

  **University**
  - Research Group: Chemistry Biology Interface Training Grant (Member)
  - Committee/Panel: Library Committee (Liaison) (Chair), Sterling C. Evans Library Faculty Senate Reporting Committee Council (Member), Texas A&M University International Curriculum Development Grant Review Panel (Member)

  **Department**
  - Research Group: NMR and Mass Spectrometry User Group (Member)
  - Committee/Panel: Library Committee (Representative)

• **TEACHING ASSIGNMENTS DURING 2008**

  **Spring**
  - CHEM 689. — **Special Topics in** (total enrollment: 6)
  - CHEM 691. — **Research** (total enrollment: 11)

  **Summer**
  - CHEM 691. — **Research** (total enrollment: 11)

  **Fall**
  - CHEM 231. — **Techniques of Organic Chemistry** (total enrollment: 62)
CHEM 691. — Research (total enrollment: 10)

• RESEARCH PROJECTS DURING 2008

Federal
▷ (REN) Design and Synthesis of Functional NGF Peptidomimetics, National Institutes of Health, coworkers: J. Han (G), J. Jose (G), A. Khunsubdee (G), J. Liu (G), S. Shimidzu (G)
▷ Evolving Libraries of Bivalent Compounds, National Institutes of Health, coworkers: A. Loudet (P), A. Malakhov (P), E. Ko (G), J. Liu (G)
▷ Fluorescent Probes for Multiplexed Intracellular Imaging, National Institutes of Health, coworkers: J. Castro (G), J. Han (G), J. Jose (G), A. Loudet (G), C. Thivierge (G), Y. Ueno (G), L. Wu (G), J. Zhao (G)
▷ Asymmetric Hydrogenations of Unfunctionalized Alkenes Mediated by Ir-N-Heterocyclic Carbene Complexes, National Science Foundation, coworkers: A. Schaefer (P), J. Zhao (P), Y. Zhu (G)
▷ (REN) The Texas Two-Step Approach to Privileged Chirons, National Science Foundation

Private
▷ Synthesis of Deoxypolypropionate Chirons, The Robert A. Welch Foundation, coworkers: J. Han (G), C. Thivierge (G), Y. Ueno (G), Y. Zhu (G)

Industrial
▷ Compound Screening, Amersham Biosciences AB

• PRESENTATIONS DURING 2008

▷ “Peptidomimetics for Mimicking or Disrupting Protein-protein Interactions,” Kansas State University, Manhattan, KS, January, 2008.( Individual)
▷ “Chiral Crabtree Catalyst Analogs for Syntheses of Deoxypolyketide Chirons,” University of New Mexico, Albuquerque, NM, February, 2008.( Individual)
▷ “Chiral Crabtree Catalyst Analogs for Syntheses of Deoxypolyketide Chirons,” Colorado State University, Fort Collins, CO, April, 2008.( Individual)
▷ “Chiral Crabtree Catalyst Analogs for Syntheses of Deoxypolyketide Chirons,” University of Wyoming, Laramie, WY, April, 2008.( Individual)
▷ “Chiral Crabtree Catalyst Analogs for Syntheses of Deoxypolyketide Chirons,” University of Illinois, Chicago, IL, May, 2008.( Individual)
▷ “Chiral Crabtree Catalyst Analogs for Syntheses of Deoxypolyketide Chirons,” Simon Fraser University, Burnaby, Canada, July, 2008.( Individual)
▷ “Chiral Crabtree Catalyst Analogs for Syntheses of Deoxypolyketide Chirons,” University of British Columbia, Canada, July, 2008.( Individual)
▷ “Libraries of Bivalent Peptidomimetics for Mimicking or Disrupting Protein-Protein Interactions,” International Symposium on Organic Synthesis and Drug Discovery, Nanjing, China, October, 2008.( Invited)
• PUBLICATIONS DURING 2008


• ADDITIONAL UNIVERSITY TITLES HELD DURING 2008
  ▷ Member, Interdisciplinary Faculty, Materials Science and Engineering, [2007]

• AWARDS DURING 2008
  National
  ▷ Gallery of Success Award, Temple University
  ▷ National Northeast ACS Division Award - Excellence in Academic Research, American Chemical Society

• SERVICE DURING 2008
  International
  ▷ Service Position: Hydrogen Storage in Metal Phosphonates Proposal (Consultant)
  College
  ▷ Committee/Panel: Faculty Advisory Council (Elected Member)
  Department
  ▷ Committee/Panel: Undergraduate Research Programs (Mentor)

• TEACHING ASSIGNMENTS DURING 2008
  Spring
  ▷ CHEM 491. — Research (total enrollment: 4)
  ▷ CHEM 691. — Research (total enrollment: 2)
  Summer
  ▷ CHEM 491. — Research (total enrollment: 2)
  ▷ CHEM 691. — Research (total enrollment: 2)
  Fall
  ▷ CHEM 106. — Molecular Science for Citizens (total enrollment: 80)
  ▷ CHEM 491. — Research (total enrollment: 2)
  ▷ CHEM 691. — Research (total enrollment: 2)

• RESEARCH PROJECTS DURING 2008
  Federal
  ▷ (REN) The Synthesis, Structures and Chemical Properties of Macrocyclic Ligands Covalently Bonded into Layered Arrays, Department of Energy, coworkers: S. Samarajeeva (Visiting Scientist), S. Kirumakki (P), J. Yao (P), T. Clover (U), C. Gatlin (U), A. Mukherjee (U)
(REN) Pillared Layered Compounds: Their Synthesis, Structure and Properties, National Science Foundation, coworkers: B. Shpeizer (Research Scientist), P. Zhang (P), K. Gagnon (G), T. Kinnibrugh (G), H. Perry (G), J. Law (U), M. Raiford (U)

Strategic Design and Optimization of Sorbents for Cesium, Strontium, and Actinides, Westinghouse Savannah River, coworkers: C. Fewox (G), T. Bosser (U)

Private

Metal Phosphonates as Crystal Engineered Solids A-0673, The Robert A. Welch Foundation, coworkers: S. Kirumakki (P), J. Yao (P), H. Perry (G), T. Clover (U)

• PRESENTATIONS DURING 2008
  ➢ “Solid State Chemistry of Porous Pillared Group IV Phosphonates,” Cancun, Mexico, March, 2008.( Individual)
  ➢ “Coordination Chemistry of Metal Phosphonates,” 236th ACS National Meeting, Philadelphia, PA, August, 2008.( Individual)

• PUBLICATIONS DURING 2008


• SERVICE DURING 2008

National

Department
▷ Committee/Panel: Graduate Admissions and Review Committee (Member), Organic Division Faculty Search Committee (Member)

• TEACHING ASSIGNMENTS DURING 2008

Spring
▷ CHEM 446. — Organic Chemistry III (total enrollment: 12)
▷ CHEM 681. — Seminar (total enrollment: 36)
▷ CHEM 691. — Research (total enrollment: 4)

Summer
▷ CHEM 491. — Research (total enrollment: 1)
▷ CHEM 691. — Research (total enrollment: 4)

Fall
▷ CHEM 227. — Organic Chemistry I (total enrollment: 40)
▷ CHEM 491. — Research (total enrollment: 2)
▷ CHEM 691. — Research (total enrollment: 4)

• RESEARCH PROJECTS DURING 2008

State
▷ Total Synthesis of Guaianolide Natural Products, Texas Higher Education Coordinating Board, coworkers: Y. Kim (P)

Private
▷ Asymmetric Hydrovinylation and Related Reactions, American Chemical Society, coworkers: R. Sanchez, Jr (G)
▷ New Methods for Asymmetric Catalysis, The Robert A. Welch Foundation, coworkers: A. Bugarin (G), J. Kang (G)

• PRESENTATIONS DURING 2008
▷ “Cationic Ruthenium Catalysts for Olefin Hydrovinylation,” 64th Southwest Regional Meeting of the American Chemical Society, Little Rock, AR, October, 2008. (Individual)
“Conversion of Nitrosobenzenes to Isoxazolidines: An Efficient Cascade Process Utilizing Reactive Nitrone Intermediates,” 64th Southwest Regional Meeting of the American Chemical Society, Little Rock, AR, October, 2008.( Individual)

• PUBLICATIONS DURING 2008


PAUL S. CREMER

PROFESSOR
CHEM-Analytical, Biological & Phys. Chem.
cremer@mail.chem.tamu.edu

- CHAIRS/PROFESSORSHIPS
  - A.E. Martell Endowed Chair [2007]
  - Davidson Chair in Science [2005]

- ADDITIONAL UNIVERSITY TITLES HELD DURING 2008
  - Member, Interdisciplinary Faculty, Materials Science and Engineering, [2006]

- SERVICE DURING 2008
  National
    - Committee/Panel: ACS Colloid & Surface Science Division (Chair), Langmuir, Chemical Reviews, Surface Science, and Biointerphases (Editorial Board)
  College
    - Committee/Panel: Tenure and Promotion Advisory Committee (Member)
  Department
    - Committee/Panel: Analytical Chemistry Division (Chair), Executive Committee (Member), Graduate Student Association Committee (Advisor)

- TEACHING ASSIGNMENTS DURING 2008
  Spring
    - CHEM 491 — Research (total enrollment: 1)
    - CHEM 602. — Analytical Chemistry II (total enrollment: 8)
    - CHEM 691. — Research (total enrollment: 13)
  Summer
    - CHEM 691. — Research (total enrollment: 11)
  Fall
    - CHEM 691. — Research (total enrollment: 12)

- RESEARCH PROJECTS DURING 2008
  Federal
    - Developing Air-Stable Biosensors with Solid Supported Lipid Bilayers, Department of Defense, coworkers: S. Lim (G), Y. Zhang (G)
Developing Label-Free Assays for Ligand Receptor Binding at Biointerfaces, *Department of Defense*

Protein Supported Lipid Bilayers as a Mimic of Native Biological Membranes, *Department of Health and Human Services*

(REN) Creating Platforms for the Proteomics of Membrane Proteins, *National Institute of General Medical Sciences*

Graduate Training in Molecular Biophysics, *National Institutes of Health*

Multivalent Ligand-Receptor Binding on Lipid Bilayers, *National Institutes of Health*, coworkers: T. Yang (P), F. Albertorio (G), E. Castellana (G), Y. Cho (G), A. Diaz (G), H. Jung (G), S. Kataoka (G), J. Shi (G)

Probing Protein-Salt Interactions with Micro-fluidics and Nonlinear Optics, *National Science Foundation*

**State**

Fueling the Hydrogen Economy: Catalytic Approaches to Hydrogen, *Energy Resources Program*

Separating Membrane Proteins for Proteomics, *Texas Higher Education Coordinating Board*

**Private**

Using Temperature Gradients to Study Polymer and Protein Solubility, *Camille and Henry Dreyfus Foundation*


Probing Monolayer and Interfacial Water Structure in the Presence of Anions, *The Robert A. Welch Foundation*

The Effect of Osmolytes on Water and Protein Structure, *The Robert A. Welch Foundation*

**PRESENTATIONS DURING 2008**


“Using Supported Bilayers as a Separation Matrix,” CINT Users Meeting, Albuquerque, NM, January, 2008.( Individual)


“Using Supported Bilayers as a Separation Matrix,” Center for Analytical Biotechnology, University of California, Berkeley, CA, February, 2008.( Individual)

“Using Supported Bilayers as a Separation Matrix,” Department of Polymer Science and Engineering, University of Massachusetts, Amherst, MA, February, 2008.( Individual)


“How do Salts and Osmolytes Stabilize/Denature Proteins?,” Department of Chemistry, Texas Christian University, Fort Worth, TX, April, 2008.( Individual)

“Using Supported Bilayers as a Separation Matrix,” Department of Chemical Engineering, University of Houston, Houston, TX, September, 2008. (Individual)


“Using Supported Bilayers as a Separation Matrix,” Departments of Chemistry and Chemical Engineering, Notre Dame University, South Bend, IN, October, 2008. (Individual)

“Using Supported Bilayers as a Separation Matrix,” Liquid Crystal Institute, Kent State University, Kent, OH, October, 2008. (Individual)

“How Do Salts Denature Proteins?,” Department of Chemistry, St. Edward’s University, Austin, TX, November, 2008. (Individual)


- PUBLICATIONS DURING 2008


• **ADDITIONAL UNIVERSITY TITLES HELD DURING 2008**
  ▶ Director, X-Ray Diffraction Laboratory (formerly Crystal and Molecular Structure Laboratory), Chemistry, [1985]

• **SERVICE DURING 2008**
  **International**
  ▶ Editorial/Board: Scientific Advisory Board of ICCDU (Member)
  
  **National**
  ▶ Editorial/Board: Editorial Advisory Board of Advances in Inorganic Chemistry and Organometallics (Member), Numerous Research Proposals and Numerous Manuscripts, National Journals (Reviewed)

• **TEACHING ASSIGNMENTS DURING 2008**
  **Spring**
  ▶ CHEM 636. — *Mechanistic Inorganic Chemistry* (total enrollment: 4)
  ▶ CHEM 691. — *Research* (total enrollment: 5)
  
  **Summer**
  ▶ CHEM 491. — *Research* (total enrollment: 1)
  ▶ CHEM 691. — *Research* (total enrollment: 5)
  
  **Fall**
  ▶ CHEM 103. — *Structure and Bonding* (total enrollment: 13)
  ▶ CHEM 113. — *Physical and Chemical Principles* (total enrollment: 15)
  ▶ CHEM 691. — *Research* (total enrollment: 5)

• **RESEARCH PROJECTS DURING 2008**
  **Federal**
  ▶ Biodegradable Copolymers Produced from Carbon Dioxide and Epoxides by Well-Defined Metal Catalysts: Mechanistic and Technology Enabling Studies, *National Science Foundation*, coworkers: C. de Moura (Visiting Scientist), M. Ulusoy (Visiting Scientist), J. Andreatta (G), W. Choi (G), S. Fitch (G), E. Frantz (G), O. Karroonrirun (G), A. Moncada (G), R. Poland (G), S. Wei (G), A. Jones (U), M. Jungman (U), M. Keyser (U), C. Richers (U), S. Stranahan (U), S. Swingle (U), S. Wilson (U)
  
  **Private**
  ▶ The Influence of Electronic and Steric Effects on Reactivity of Metah-(ETA-2-Aromatic) Bond: A Laser Flash Photolysis Study with Infrared Detection., *Qatar National Research Fund*, coworkers: J. Andreatta (G), R. Poland (G)
→ (REN) Mixed Metal Cyanide Derivatives and Their Role in Catalysis, *The Robert A. Welch Foundation*, coworkers: C. de Moura (Visiting Scientist), M. Ulusoy (Visiting Scientist), J. Andreatta (G), W. Choi (G), S. Fitch (G), E. Frantz (G), O. Karroonnirun (G), A. Moncada (G), R. Poland (G), S. Wei (G), A. Jones (U), M. Jungman (U), M. Keyser (U), C. Richers (U), S. Stranahan (U), S. Swingle (U), S. Wilson (U)

**PRESENTATIONS DURING 2008**


→ “Studies Towards Greener Polymer/Catalyst Separations in the Production of Polycarbonates from \( \text{CO}_2 \) and Epoxides,” 235th National ACS Meeting, New Orleans, LA, April, 2008. (Graduate)

→ “Tetramethyltetraazaannulene)chromium Chloride: A Highly Active Catalyst for the Alternating Copolymerization of Epoxides and Carbon Dioxide,” 235th National ACS Meeting, New Orleans, LA, April, 2008. (Graduate)

→ “Mechanistic Insight into the Initiation Step of the Coupling Reaction of Oxetane and \( \text{CO}_2 \) Catalyzed by (salen)CrX Complexes,” 236th National ACS Meeting, Philadelphia, PA, August, 2008. (Graduate)

→ “Making Plastics from Carbon Dioxide,” Polymer Technology Industrial Consortium (PTIC) Conference, Texas A&M University, College Station, TX, October, 2008. (Graduate)


**PUBLICATIONS DURING 2008**


→ Darensbourg, D.J.; Frantz, E.B. (2008) X-Ray Crystal Structures of Five-Coordinate (Salen)\( \text{Mn} \cdot \text{N}_3 \) Derivatives and Their Binding Abilities Towards Epoxides: Chemistry Relevant to the Epoxide-\( \text{CO}_2 \) Copolymerization Process *Dalton Transactions* 5031-5036.


→ Darensbourg, D.J.; Moncada, A.I.; Choi, W.; Reibenspies, J.H. (2008) Mechanistic Studies of the Copolymerization Reaction of Oxetane and Carbon Dioxide to Provide Aliphatic...
Polycarbonates Catalyzed by (Salen)CrX Complexes *Journal of the American Chemical Society*, vol. 130, 6523-6533.


• SERVICE DURING 2008

International
▷ Editorial/Board: Chemical Communications Editorial Advisory Board (Member), Journal of Inorganic Biochemistry Editorial Advisory Board (Member), Various Manuscripts (Reviewed)

National
▷ Professional Affiliation: Inorganic Chemistry Editorial/Board (Member)
▷ Editorial/Board: California Institute of Technology/Massachusetts Institute of Technology, "Powering the Planet" Chemical Boarding Center Advisory Board (Member), Department of Energy Catalysis Program Initiative (Reviewed), Various Manuscripts (Reviewed)
▷ Committee/Panel: American Chemical Society’s Petroleum Research Fund (Advisory Board)

College
▷ Committee/Panel: Diversity Committee (Member)

Department
▷ Research Group: ESR User Group (Member), NMR User Group (Member), X-ray Diffraction User Group (Member)
▷ Service Position: 2008 Annual Biomedical Research Conference for Minority Students (ABRCMS) (Recruiting)
▷ Committee/Panel: Advisory Council (Member), Faculty Awards (Member), Library Committee (Member), P&T Committee (Member), Space Committee (Member), Undergraduate Curriculum Committee (Member)

• TEACHING ASSIGNMENTS DURING 2008

Spring
▷ CHEM 433. — Advanced Inorganic Chemistry Laboratory (total enrollment: 13)
▷ CHEM 491. — Research (total enrollment: 3)
▷ CHEM 691. — Research (total enrollment: 8)

Summer
▷ CHEM 491. — Research (total enrollment: 3)
▷ CHEM 691. — Research (total enrollment: 8)

Fall
▷ CHEM 491. — Research (total enrollment: 3)
▷ CHEM 691. — Research (total enrollment: 8)

• RESEARCH PROJECTS DURING 2008
Federal

▷ Bio-organometallic Catalysts: Strategies for Synthesis, Immobilization, and Applications, National Science Foundation, coworkers: B. Li (Visiting Scientist), C. Thomas (P), E. Almaraz (G), R. Bethel (G), S. Brothers (G), C. Carson (G), S. Fitch (G), W. Foley (G), K. Green (G), J. Hess (G), R. Jenkins (G), T. Liu (G), T. Pinder (G), M. Singleton (G), T. Bosser (U), J. Denny (U), R. Nearburg(U), B. Savoie (U), L. Smith (U)

Private

▷ Bioinorganic Chemistry: Peptide Models of SOD and NHtase Enzyme Active Sites, The Robert A. Welch Foundation, coworkers: B. Li (Visiting Scientist), C. Thomas (P), E. Almaraz (G), R. Bethel (G), S. Brothers (G), C. Carson (G), S. Fitch (G), W. Foley (G), K. Green (G), J. Hess (G), R. Jenkins (G), T. Liu (G), T. Pinder (G), M. Singleton (G), T. Bosser (U), J. Denny (U), R. Nearburg(U), B. Savoie (U), L. Smith (U)

• PRESENTATIONS DURING 2008


▷ “The Organometallic Active Sites of Hydrogenase Enzymes,” McMurry University, Abilene, TX, February, 2008.( Invited)

▷ “The Organometallic Active Sites of Hydrogenase Enzymes,” University of the Incarnate Word, San Antonio, TX, February, 2008.( Invited)

▷ “The Organometallic Active Sites of Hydrogenase Enzymes,” West Texas A&M University, Canyon, TX, February, 2008.( Invited)

▷ “Biomimics of [FeFe] Hydrogenase with Organometallic Complexes,” 2008 Annual Conference: The Business of Fueling the Future, the Academy of Medicine, Engineering and Science of Texas, College Station, TX, March, 2008.(Poster Graduate)

▷ “The Organometallic Active Sites of Hydrogenase Enzymes,” Trinity University, San Antonio, TX, March, 2008.( Invited)

▷ “A paramagnetic trigonal paddlewheel complex with iron-dithiolato ligand paddles: [(C9H18N2S2)Fe(NO)]3Ag2(BF4)2,” 235th American Chemical Society National Meeting, New Orleans, LA, April, 2008.(Poster Graduate)

▷ “Computational Explorations of M(N2S2)2− [M = Ni, Cu] Complexes as Models for Acetyl Coenzyme A Synthase,” 235th ACS National Meeting, New Orleans, LA, April, 2008.(poster Graduate)

▷ “Construction of Polymetallic Paddlewheel Complexes from (N2S2)Ni and (N2S2)Fe(NO) Paddles and M-M Axles,” 235th ACS National Meeting, New Orleans, LA, April, 2008.( Invited)

▷ “The Organometallic Active Sites of Hydrogenase Enzymes,” Duquesne University, Pittsburgh, PA, April, 2008.( Invited)

▷ Knox Central High School, Barbourville, KY, April, 2008.( Invited)

▷ Union College, Barbourville, KY, April, 2008.( Invited)

"The Organometallic Active Sites of Hydrogenase Enzymes," University of Oregon, Eugene, OR, May, 2008.( Invited)


"Imidazole-containing Ni(N$_3$S) complexes: Biomimetics in relation to the NiSOD active site," Chemistry/Biology Interface Conference, College Station, TX, August, 2008.( Graduate)

"Imidazole-containing Ni(N$_3$S) Complexes: Structural and Electronic Comparisons to the NiSOD Active Site," 236th ACS National Meeting, Philadelphia, PA, August, 2008.( Graduate)


"Redox Active Ligands as Related to the Active Site of [FeFe]-Hydrogenase," 236th ACS National Meeting, Philadelphia, PA, August, 2008.( Invited)


"The Organometallic Active Sites of Hydrogenase Enzymes," Chemistry/Biology Interface Conference, College Station, TX, August, 2008.( Invited)

"The Development of Zinc (II) Complexes Containing N- and S- Donor Environments for the Application of Zn/Pd Transmetallation," 64th Annual Southwest Regional Meeting of ACS, Little Rock, AR, October, 2008.(Poster Graduate)


- **PUBLICATIONS DURING 2008**


• CHAIRS/PROFESSORSHIPS
  ▶ Davidson Chair in Science [2004]

• ADDITIONAL UNIVERSITY TITLES HELD DURING 2008
  ▶ Member, Interdisciplinary Faculty, Computational Nanoscience and Materials - IGERT, [2006]
  ▶ Member, Interdisciplinary Faculty, Materials Science and Engineering, [2006]

• SERVICE DURING 2008

  International
  ▶ Advisory Board: American Advisor for Molmagnet, The European Funding Network for Research on Magnetism (Advisor), European Journal of Inorganic Chemistry (Member)
  ▶ Committee/Panel: Scientific Council for Natural and Engineering Sciences of Sweden, Evaluation of Inorganic Chemistry, Stockholm (Panelist)

  National
  ▶ Professional Affiliation: American Association for the Advancement of Science (Fellow), American Chemical Society (Member), American Institute of Chemists (Fellow), Kappa Mu Epsilon National Mathematics Honor Society (Member), New York Academy of Science (Member), Phi Lambda Upsilon Chemical Honorary, Nu Chapter (Member), Pi Sigma Pi National Scholastic Honorary (Member), Sigma Xi Chemical Honorary (Member)
  ▶ Event: Gordon Research Conference Council (Member)
  ▶ Advisory Board: Crystal Engineering (Member), Journal of the Chemical Society, Dalton Transactions (Member)
  ▶ Editorial/Board: Inorganic Chemistry (Associate Editor)
  ▶ Committee/Panel: Division of Inorganic Chemical, American Chemical Society (Chair), Division of Inorganic Chemical, American Chemical Society Executive Committee (Member)

  Department
  ▶ Committee/Panel: Infrastructure Committee (Member), SQUID Instrumentation Committee (Chair), X-ray Committee (Member)

• TEACHING ASSIGNMENTS DURING 2008

  Spring
  ▶ CHEM 362. — Descriptive Inorganic Chemistry (total enrollment: 50)
  ▶ CHEM 691. — Research (total enrollment: 12)

  Summer
  ▶ CHEM 691. — Research (total enrollment: 12)
RESEARCH PROJECTS DURING 2008

Federal

- Design Principles of Nanomagnets Based on Molecules: Investigation of Spin, Orbital, and Molecular Shape Anisotropies, *Department of Energy*, coworkers: F. Karadas (P), N. Lopez (P), A. Prosvirin (U), H. Zhao (U)
- (REN) Molecular Magnets Based on Modular Approach: Investigation of Coupling Anisotropy and Electronic Factors on Bistability, *Department of Energy*
- A Systematic Study of the Structural Magnetic and Spectroscopic Properties of Clusters and Extended Arrays Based on Cyanide Ligands, *National Science Foundation*
- Systematic Studies of the Structural, Magnetic, and Spectroscopic Properties on Cyanide Ligands, *National Science Foundation*, coworkers: M. Hilfiger (P), A. Prosvirin (U)

Private


Other


PRESENTATIONS DURING 2008

- “Frontiers Lecturer,” Case Western University, Cleveland, OH, February, 2008. (Individual)
- “Anion-π Interactions and Their Effect on the Anion-Templation of Polygonal Metal Architectures,” ACS Meeting, New Orleans, LA, April, 2008. (Individual)
- “Bridging the Bilingual Gap: Using Chemistry to Enhance Science Education in the Bilingual Classroom,” ACS Meeting, New Orleans, LA, April, 2008. (Individual)
- “Bridging Theory and Experiment: Rational Design of Molecules Based on Theoretical Predictions,” ACS Meeting, New Orleans, LA, April, 2008. (Individual)
- “Derivatization of Cyanide-Bridged Molecular Clusters to Enhance Their Physical and Magnetic Properties,” ACS Meeting, New Orleans, LA, April, 2008. (Individual)
“Interactions of Dirhodium Anticancer Compounds with DNA,” Symposium, April, 2008. (Individual)

“Investigations into the Interactions Between Complex Anions and Conjugated Olefinic Systems: Can These be Considered Anion-π,” ACS Meeting, New Orleans, LA, April, 2008. (Individual)

“Metal-Organic Frameworks Based on Metal ions and Organocyanide Ligands,” ACS Meeting, New Orleans, LA, April, 2008. (Individual)


“Threaded Bimetallic DNA Metallointercalators as Moderators of Charge Transfer,” ACS Meeting, New Orleans, LA, April, 2008. (Individual)


“Incorporation of Both Cyanide and Organocyanide Ligands into Molecules and Extended Solids that Incorporate,” 2nd Workshop Current trends in Nanoscopic and Mesoscopic Magnetism, Delphi, Greece, September, 2008. (Individual)


“Molecular Magnets and Conductors Based on Metal Ions and TCNQ Derivatives,” 11th International Conference on Molecule-based Magnets, Florence, Italy, September, 2008. (Individual)

Westminster College, New Wilmington, PA, October, 2008. (Individual)


**PUBLICATIONS DURING 2008**


• ADDITIONAL UNIVERSITY TITLES HELD DURING 2008
  ░ Member, Interdisciplinary Faculty, Materials Science and Engineering, [2006]
  ░ Member, Interdisciplinary Faculty, Toxicology, [2006]

• SERVICE DURING 2008
  National
  ░ Professional Affiliation: American Chemical Society (Career Counselor), Inorganic Synthesis Corporation (Member)
  ░ Advisory Board: Chemistry Department, Valparaiso University (Advisory Committee)
  ░ Editorial/Board: Inorganic Chemistry and Molecular Structure in Journal of Molecular Structure (Guest Editor), Comments on Inorganic Chemistry (Editor), Journal of Cluster Science (Board Member), Profiles in Inorganic Chemistry (Editor)

  University
  ░ Committee/Panel: Distinguished Professors Executive Committee (Member), Faculty Senate (Faculty Senator - 05), National Advisory Board PEER, College of Veterinary Medicine (Member), Quality Enhancement Plan Council, Executive Committee (Member), Research Environment Council (Member), TAMU Chapter Sigma Xi, Planning and Executive Committees (Member)

  College
  ░ Committee/Panel: College Quality Enhancement Plan Council (Member)

  Department
  ░ Advisory Board: Industry University Cooperative Chemistry Program (Member)
  ░ Committee/Panel: Faculty Awards Committee (Member)

• TEACHING ASSIGNMENTS DURING 2008
  Summer
  ░ CHEM 491. — Research (total enrollment: 2)

  Fall
  ░ CHEM 491. — Research (total enrollment: 1)

• RESEARCH PROJECTS DURING 2008
  Private
  ░ Camille and Henry Dreyfus Foundation Senior Scientist Mentor Grant, Camille and Henry Dreyfus Foundation
  ░ Polynuclear Gold and Related Element Chemistry with Nitrogen Ligands-Syntheses, Structure and Reactivity, The Robert A. Welch Foundation
PUBLICATIONS DURING 2008


• SERVICE DURING 2008

National
▷ Editorial/Board: Archives of Biochemistry and Biophysics (Executive Editor)
▷ Committee/Panel: NIH Physical Biochemistry Study Section (Ad hoc Member)

Department
▷ Research Group: Protein Chemistry Lab Users’ Group (Chair)
▷ Committee/Panel: Graduate Curriculum Committee (Member)

• RESEARCH PROJECTS DURING 2008

Federal
▷ Enzymes of Neurotransmitter Biosynthesis, National Institutes of Health, coworkers: C. Daubner (P), M. Royo (P), B. Eser (G), P. Frantom (G), J. Li (G), A. Pavon (G), E. Ralph (G), G. Sura (G), V. Baxter (U), T. McGinnis (U)
▷ Graduate Training in Molecular Biophysics, National Institutes of Health
▷ Mechanisms of Flavoproteins, National Institutes of Health, coworkers: C. Daubner (P), V. Gawandi (P), D. Borizovski (G), E. Ralph (G), C. Tsai (G)

Private
▷ (REN) Mechanisms of Oxidative Enzymes, The Robert A. Welch Foundation

• PUBLICATIONS DURING 2008


No report received from faculty member.
• CHAIRS/PROFESSORSHIPS
  ▷ Davidson Chair in Science [2008]

• ADDITIONAL UNIVERSITY TITLES HELD DURING 2008
  ▷ Member, Interdisciplinary Faculty, Materials Science and Engineering, [2006]

• SERVICE DURING 2008
  Department
  ▷ Research Group: Laboratory For Molecular Simulation Users Committee (Member), NMR Users Committee (Member), X-Ray Powder Users Committee (Chair), X-Ray Single Crystal Users Committee (Member)
  ▷ Committee/Panel: Colloquium and Seminar Committee (Member), Executive Committee (Member), Graduate Awards Committee (Member), Inorganic Chemistry Division (Chair), Search Committee (Chair), Shop Committee (Member)

• TEACHING ASSIGNMENTS DURING 2008
  Spring
  ▷ CHEM 104. — Chemistry of the Elements (total enrollment: 8)
  ▷ CHEM 114. — Quantitative Analysis (total enrollment: 8)
  ▷ CHEM 491. — Research (total enrollment: 1)
  ▷ CHEM 681. — Seminar (total enrollment: 22)
  ▷ CHEM 691. — Research (total enrollment: 7)
  ▷ CHEM 695. — Frontiers in Chemical Research (total enrollment: 36)

  Summer
  ▷ CHEM 491. — Research (total enrollment: 1)
  ▷ CHEM 685. — Directed Studies (total enrollment: 1)
  ▷ CHEM 691. — Research (total enrollment: 4)

  Fall
  ▷ CHEM 629. — Main Group Chemistry (total enrollment: 22)
  ▷ CHEM 681. — Seminar (total enrollment: 23)
  ▷ CHEM 691. — Research (total enrollment: 6)
  ▷ CHEM 695. — Frontiers in Chemical Research (total enrollment: 55)

• RESEARCH PROJECTS DURING 2008
  Federal
  ▷ Neutral Bidentate Lewis Acids as Fluoride Probes, Aberdeen Proving Ground
Project 1, Aim 2-Synthesis of Novel Fluoride Sensing Compounds for the Bioscavenger U54 Center of Excellence Grant from NINDS, Department of Defense

Rational Design of hPON Mutants, Department of Defense

Cationic Boranes - Synthesis, Reduction, and Generation of Radicals, National Science Foundation

Private

Ortho-Bis(Methyl)cyclolene and Related Dications-Synthesis, Characterization and Anion Complexation, American Chemical Society

1, 8-Bis(methyl)naphtalenediyl Dications and Related Borane/Methylcyclobutane Species, The Robert A. Welch Foundation

Synthesis and Reduction Chemistry of \( \alpha \)-Phosphonyl-Carbocations and \( \alpha \)-Phosphonio-Carbocations, The Robert A. Welch Foundation

**PRESENTATIONS DURING 2008**


"Coordination of Fluoride and Cyanide Ions to Cationic Boranes in Aqueous Solution," Zing Coordination Chemistry Conference, Cancun, Mexico, March, 2008.( Individual)

"Cationic Dipyromethene Boron Compounds for Anion Sensing," 91st Canadian Chemistry Conference, Edmonton, Canada, May, 2008.( Individual)

"Fluoride Ion Complexation by a \( B_2/Hg \) Heteronuclear Tridentate Lewis Acid," Dalton Discussion 11 The Renaissance of Main Group Chemistry, June, 2008.( Individual)


"Anion Complexation by Cationic Boron Compounds," ImeBoron XIII, Platja d’Aro, Spain, September, 2008.( Individual)

"Cationic Lewis Acids - Reduction Chemistry and Anion Complexation," Departmental Seminar, University of North Carolina, Chapel Hill, NC, November, 2008.( Individual)


**PUBLICATIONS DURING 2008**


SEC. 6.1 PROFESSIONAL ACTIVITIES 209


• SERVICE DURING 2008

National
▷ Professional Affiliation: American Chemical Society, Chemical Education Division (Member), Biophysical Society (Member)
▷ Editorial/Board: Langmuir (Reviewer)
▷ Committee/Panel: National Science Foundation Research Experience for Undergraduates (Panelist)

University
▷ Event: Faculty Teaching Academy (Participant), Sciences Career Fair (Volunteer)
▷ Committee/Panel: By Law Committee (Chair), Core Curriculum Committee (Member), Faculty Advisory Board, Center for Teaching Excellence (Member), Faculty Senate (Faculty Senator - 13), Parent’s Council, University Children’s Center (Member), Personnel and Welfare Committee (Member), Research Roadmap Committee (Member), REU Workshop (Panelist), Search Committee, Assistant Dean for Undergraduate Research (Member), Writing Course Advisory Committee (Member)

College
▷ Committee/Panel: Undergraduate Curriculum Committee (Member)

Department
▷ Service Position: Undergraduate Advisor (Advisor)
▷ Event: Chemistry Open House (Volunteer), Summer Research Experience for Undergraduates (Director)
▷ Committee/Panel: Academic Operations Council (Member), Council on Undergraduate Research (Member), Teaching Awards Committee (Member), Undergraduate Awards Committee (Chair)

• TEACHING ASSIGNMENTS DURING 2008

Spring
▷ CHEM 326. — Physical Chemistry Laboratory II (total enrollment: 22)
▷ CHEM 491. — Research (total enrollment: 13)

Summer
▷ CHEM 485. — Directed Studies (total enrollment: 2)
▷ CHEM 491. — Research (total enrollment: 19)

Fall
▷ CHEM 481. — Seminar (total enrollment: 28)

• RESEARCH PROJECTS DURING 2008
Federal
▷ REU Site: Biological, Environmental, and Materials Chemistry Research at Texas A&M University, *National Science Foundation*

• PRESENTATIONS DURING 2008
▷ “Undergraduate Research as a Transforming Experience,” Graduate Student Mentoring Workshop, May, 2008. (Individual)
▷ “Impact of First and Second Year Programs in Chemistry,” College of Science Advisory Council, October, 2008. (Individual)
▷ “Undergraduate Research Opportunities,” CHEM100, October, 2008. (Individual)
• **TEACHING ASSIGNMENTS DURING 2008**

**Spring**
- ♦ CHEM 631. — *Statistical Thermodynamics* (total enrollment: 5)
- ♦ CHEM 691. — *Research* (total enrollment: 4)

**Summer**
- ♦ CHEM 691. — *Research* (total enrollment: 3)

**Fall**
- ♦ CHEM 691. — *Research* (total enrollment: 1)

• **RESEARCH PROJECTS DURING 2008**

**Federal**
- ♦ Purchase of a Computer Cluster for Theoretical, Computational, and Cyber-Enabled Chemistry, *National Science Foundation*

**Private**
- ♦ Using Chemical Energy at a Single Molecule Level-Chemomechanical Coupling of Molecular Motors, *American Chemical Society*
- ♦ New Faculty Award, *Camille and Henry Dreyfus Foundation*
- ♦ Searle Scholar Program, *Searle Scholars Program*

• **PRESENTATIONS DURING 2008**

- ♦ “Accelerated Protein Folding and Aggregation Simulations,” Computational Biology Workshop, Texas A&M University, College Station, TX, February, 2008. (Invited)
- ♦ “A Molecular Assembly Line Molecular Dynamics Simulations of Carbomoyll Phosphate Syethatase,” Hongkong University, Hong Kong, August, 2008. (Invited)
- ♦ “Integrated Tempering Sampling and Studies of Water/Air Interface,” University of California, Santa Barbara, CA, October, 2008. (Invited)
- ♦ “Integrated Tempering Sampling and Applications to Protein Aggregation,” University of Texas, Austin, TX, November, 2008. (Invited)
- ♦ “Integrated Tempering Sampling and Applications to Protein Folding,” Hong Kong University, Hong Kong, November, 2008. (Invited)

“Integrated Tempering Sampling and Studies of Water/Air Interface,” University of California, Irvine, CA, November, 2008. (Invited)

“Integrated Tempering Sampling and Studies of Water/Air Interface,” University of Chicago, Chicago, IL, November, 2008. (Invited)

“Integrated Tempering Sampling and Studies of Water/Air Interface,” University of Minnesota, Minneapolis, MN, November, 2008. (Invited)

“Integrated Tempering Sampling and Studies of Water/Air Interface,” University of Wisconsin, Madison, WI, November, 2008. (Invited)

**PUBLICATIONS DURING 2008**


• CHAIRS/PROFESSORSHIPS
  ▶ Dow Chair in Chemical Invention [2007]

• SERVICE DURING 2008
  
  International
  ▶ Advisory Board: International Conference on Organometallic Chemistry (ICOMC) (Member)
  ▶ Committee/Panel: External Review Committee, Osaka City University, Osaka Japan (Member)

  National
  ▶ Advisory Board: New Journal of Chemistry (Member)
  ▶ Editorial/Board: Chemical Reviews (Associate Editor)

  University
  ▶ Committee/Panel: Academic Master Plan Research Roadmap Committee (Member)

  Department
  ▶ Committee/Panel: Awards Committee (Member), Executive Advisory Committee (Member), Instructional Professor Guidelines Committee (Member), Research Infrastructure Committee (Chair)

• TEACHING ASSIGNMENTS DURING 2008
  
  Spring
  ▶ CHEM 691. — Research (total enrollment: 5)

  Summer
  ▶ CHEM 691. — Research (total enrollment: 7)

  Fall
  ▶ CHEM 491. — Research (total enrollment: 1)
  ▶ CHEM 691. — Research (total enrollment: 6)

• RESEARCH PROJECTS DURING 2008
  
  Federal
  ▶ Complexes in Which sp Carbon Chains Span Two Metals, National Science Foundation, coworkers: J. Breitenfeld (Visiting Scientist), S. Dey (Research Associate), S. Gauthier (Research Associate), Y. Kobayashi (Research Associate), N. Weisbach (Research Associate), M. Clough (G)

  Private
Fluorous Chemistry without Fluorous Solvents: New Catalyst Recovery Protocols based upon Fluoropolymers, *The Robert A. Welch Foundation*, coworkers: M. Clough (G), B. Macha (U), D. Mandal (U)

**Industrial**

Methane Oxidation in Fluorous Media, *Edwards Nanoscience, Inc*

**PRESENTATIONS DURING 2008**

- “Alkene Metathesis in Metal Coordination Spheres: The Quest for Molecular Gyroscopes,” Joint 14th Chinese National Symposium on Macrocyclic Chemistry and 6th Chinese National Symposium on Supramolecular Chemistry, Lanzhou, China, August, 2008. (Contributed)

**PUBLICATIONS DURING 2008**


• **CHAIRS/PROFESSORSHIPS**
  ▷ Robert A. Welch Foundation Chair in Chemistry [1994]

• **ADDITIONAL UNIVERSITY TITLES HELD DURING 2008**
  ▷ Member, Interdisciplinary Faculty, Materials Science and Engineering, [2006]
  ▷ Director, Center for Surface Science and Catalysis, Chemistry, [ ]

• **AWARDS DURING 2008**
  University
  ▷ JoAnn Treat Research Excellence Award, Texas A&M Research Foundation

• **SERVICE DURING 2008**
  National
  ▷ Editorial/Board: Topics in Catalysis, Catalysis Letters, Journal of Molecular Catalysis A: Chemical (Editorial Advisory Board)
  Department
  ▷ Research Group: XPS User Group (Member)
  ▷ Advisory Board: Industry University Cooperative Chemistry Program (Representative)
  ▷ Committee/Panel: Awards Committee (Member), Electronics and Machine Shop User Group (Machine Shop Liason) (Member), Executive Committee (Member)

• **TEACHING ASSIGNMENTS DURING 2008**
  Spring
  ▷ CHEM 106.501 — Molecular Science for Citizens (total enrollment: 76)
  ▷ CHEM 106.502 — Molecular Science for Citizens (total enrollment: 52)
  ▷ CHEM 691. — Research (total enrollment: 5)
  Summer
  ▷ CHEM 691. — Research (total enrollment: 5)
  Fall
  ▷ CHEM 691. — Research (total enrollment: 5)

• **RESEARCH PROJECTS DURING 2008**
  Federal
  ▷ Surface Chemistry of Oxides, Battelle - Pacific Northwest National Laboratory, coworkers: M. Chen (P), P. Han (P), S. Axnanda (G), Y. Cai (G), K. Luo (G), C. Yi (G)

The Physical and Chemical Properties of Nanosized Metal Clusters on Oxide Surfaces, *National Science Foundation*, coworkers: M. Chen (P), M. Lundwall (G)

**State**

Fueling the Hydrogen Economy: Catalytic Approaches to Hydrogen, *Energy Resources Program*, coworkers: S. Axnanda (G), Y. Cai (G), K. Garth (G), M. Lundwall (G)

**Private**

Vibrational and Electronic Properties of Supported Metal Clusters, *The Robert A. Welch Foundation*, coworkers: S. McClure (P), Y. Wang (P), S. Axnanda (G), F. Gao (G), K. Garth (G), M. Lundwall (G)

**Industrial**

Research on Diesel Fuel Dehydrogenation, *Cummins Corporation*, coworkers: Z. Yan (G)

**International**

Activation Studies with Cobalt Catalysts for Gas-to-Liquid Conversion, *Qatar Foundation*, coworkers: Z. Yan (G), Z. Zhou (G)

- **PRESENTATIONS DURING 2008**
  - “Catalysis by Gold: From Nanofilms to Nanoclusters,” ACS Spring Meeting, New Orleans, LA, April, 2008. (Individual)
  - “CO Oxidation over Noble Metals: From Low to High Pressures,” ACS Spring Meeting, New Orleans, LA, April, 2008. (Individual)
  - “Catalysis by Gold: From Nanofilms to Nanoclusters,” Texas A&M, Gold Catalysis Symposium, College Station, TX, May, 2008. (Individual)
  - “Catalysis by Gold and Gold Alloys,” University of Texas, Physics Department Colloquium, Austin, TX, September, 2008. (Individual)
• PUBLICATIONS DURING 2008
• SERVICE DURING 2008
  Department
  ▶ Event: “Hands on Experience in Chemistry” in National Chemistry Week (Organizer)
  ▶ Committee/Panel: Advisory Council (Member)

• TEACHING ASSIGNMENTS DURING 2008
  Spring
  ▶ CHEM 228. — Organic Chemistry II (total enrollment: 300)
  Summer
  ▶ CHEM 222. — Elements of Organic and Biological Chemistry (total enrollment: 59)
  ▶ CHEM 242. — Elementary Organic Chemistry Laboratory (total enrollment: 21)
  Fall
  ▶ CHEM 227. — Organic Chemistry I (total enrollment: 286)
CHAIRS/PROFESSORSHIPS
- Davidson Chair in Science [2004]

ADDITIONAL UNIVERSITY TITLES HELD DURING 2008
- Member, Interdisciplinary Faculty, Computational Nanoscience and Materials - IGERT, [2006]
- Member, Interdisciplinary Faculty, Materials Science and Engineering, [2006]
- Executive Associate Dean, Main Office, College of Science, [2002]
- Director, Laboratory for Molecular Simulation, Chemistry, [1997]

SERVICE DURING 2008
University
- Committee/Panel: Supercomputer Steering Committee (Member), University Research Council (Member)

College
- Committee/Panel: Executive Committee (Member), Information Technology Committee (Chair), Qatar Advisory Committee (Chair), Research Advisory Committee (Chair)

Department
- Committee/Panel: Computer User Group (Chair)

TEACHING ASSIGNMENTS DURING 2008
Spring
- CHEM 641. — Structural Inorganic Chemistry (total enrollment: 8)
- CHEM 691. — Research (total enrollment: 2)

Summer
- CHEM 691. — Research (total enrollment: 1)

Fall
- CHEM 691. — Research (total enrollment: 1)

RESEARCH PROJECTS DURING 2008
Federal
- (REN) Modeling Interfaces through an Extension of Continuum Mechanics to the Nanoscale with Application to Fracture, Debonding, and Composites, Air Force Office of Scientific Research
- Graduate Training in Molecular Biophysics, National Institutes of Health
Purchase of a Computer Cluster for Theoretical, Computational, and Cyber-Enabled Chemistry, National Science Foundation

REU Site: Nanotechnology and Materials Systems, National Science Foundation

(REN) Theoretical Studies of Inorganic, Organometallic, and Bioinorganic Systems, National Science Foundation, coworkers: C. Thomas (P), H. Wu (P), X. Yang (P)

Private

(REN) Molecular Orbital Calculations on Chemical Reactions of Transition Metals, The Robert A. Welch Foundation, coworkers: J. Keith (P), P. Surawatanawong (G), B. Vastine (G)

• PRESENTATIONS DURING 2008


“Modelling Metalloenzymes: Nickel-Iron and Di-iron Hydrogenases,” University of East Anglia, United Kingdom, May, 2008. (Invited)


“Modelling Metalloenzymes: Hydrogenases,” University of Marburg, Germany, November, 2008. (Invited)

• PUBLICATIONS DURING 2008


• SERVICE DURING 2008

National
▷ Professional Affiliation: Phi Kappa Phi Honor Society (President)

Department
▷ Service Position: Organic Teaching Laboratories (Coordinator)
▷ Committee/Panel: Chemistry Education Committee (Member), Cume Preparation and Grading (Participant), Graduate Awards Committee (Member)

• TEACHING ASSIGNMENTS DURING 2008

Spring
▷ CHEM 228.(H) — Organic Chemistry II (total enrollment: 26)
▷ CHEM 697. — Methods in Teaching Chemistry Laboratory (total enrollment: 15)

Summer
▷ CHEM 227. — Organic Chemistry I (total enrollment: 68)
▷ CHEM 237. — Organic Chemistry Laboratory (total enrollment: 34)

Fall
▷ CHEM 228. — Organic Chemistry II (total enrollment: 77)
▷ CHEM 691. — Research (total enrollment: 1)
▷ CHEM 697. — Methods in Teaching Chemistry Laboratory (total enrollment: 6)

No report received from faculty member.
• SERVICE DURING 2008

International
▷ Editorial/Board: Angewandte Chemie, International Edition (Reviewer)

National
▷ Editorial/Board: National Science Foundation (Review: Proposals)

Department
▷ Committee/Panel: Information Technology Committee (Member)

• TEACHING ASSIGNMENTS DURING 2008

Spring
▷ BICH 691. — Research (total enrollment: 1)
▷ CHEM 491. — Research (total enrollment: 1)
▷ CHEM 691. — Research (total enrollment: 4)

Summer
▷ BICH 691. — Research (total enrollment: 1)
▷ CHEM 691. — Research (total enrollment: 4)

Fall
▷ BICH 691. — Research (total enrollment: 1)
▷ CHEM 327. — Physical Chemistry (total enrollment: 59)
▷ CHEM 491. — Research (total enrollment: 1)
▷ CHEM 691. — Research (total enrollment: 4)

• RESEARCH PROJECTS DURING 2008

Private
▷ Structure and Function of Membrane Proteins by NMR Using DNP Hyperpolarization, 
  Camille and Henry Dreyfus Foundation, coworkers: S. Bowen (G), S. Hwang (G), G. Sekar 
  (G), H. Zeng (G)
▷ Structural Perspectives on Transmembrane Helix Assembly by NMR, The Robert A. Welch 
  Foundation, coworkers: S. Hwang (G), G. Sekar (G)

• PRESENTATIONS DURING 2008

▷ “Time Resolved Dynamic Nuclear Polarization Enhanced NMR,” 49th Experimental Nu-
  clear Magnetic Resonance Conference, April, 2008.(Poster Individual)
▷ “Ultrahigh Time Resolution Remote Detection NMR of Lab on a Chip Devices,” 49th 
  Experimental Nuclear Magnetic Resonance Conference, April, 2008.(Poster Individual)
“Sensing, Amplification and Activation Approaches Hyperpolarization,” 16th Annual Scientific Meeting of the International Society of Magnetic Resonance in Medicine, August, 2008.(Poster Individual)


• PUBLICATIONS DURING 2008


JOHN L. HOGG

PROFESSOR
CHEM-Organic Chemistry

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hogg@mail.chem.tamu.edu

• CHAIRS/PROFESSORSHIPS
  ▶ Presidential Professor for Teaching Excellence [2007]
  ▶ Thaman University Professorship in Undergraduate Teaching Excellence [1999]
  ▶ University Professorship in Undergraduate Teaching Excellence [1996]

• ADDITIONAL UNIVERSITY TITLES HELD DURING 2008
  ▶ Undergraduate Advisor, Chemistry Undergraduate Advising Office, Chemistry, [1985]

Deceased 01/19/2008.
• **ADDITIONAL UNIVERSITY TITLES HELD DURING 2008**
  ◦ Member, Interdisciplinary Faculty, Materials Science and Engineering, [2006]

• **SERVICE DURING 2008**
  National
  ◦ Event: North American Solid State Chemistry Conference (Organizer)
  
  Department
  ◦ Research Group: X-Ray Diffraction User Group (Member)
  ◦ Service Position: Graduate Admissions and Recruiting (Department Coordinator)
  ◦ Committee/Panel: Computer User Group (Member), Graduate Curriculum Committee (Member)

• **TEACHING ASSIGNMENTS DURING 2008**
  Spring
  ◦ CHEM 634. — **Physical Methods in Inorganic Chemistry** (total enrollment: 9)
  ◦ CHEM 691. — **Research** (total enrollment: 3)
  
  Summer
  ◦ CHEM 691. — **Research** (total enrollment: 6)
  
  Fall
  ◦ CHEM 673. — **Symmetry and Group Theory in Chemistry** (total enrollment: 24)
  ◦ CHEM 691. — **Research** (total enrollment: 6)

• **RESEARCH PROJECTS DURING 2008**
  Federal
  ◦ Investigation of Magnetism in Discrete Rare Earth Clusters and Low Dimensional Solids, National Science Foundation, coworkers: S. Dempsey (G), L. Roy (G), L. Sweet (G)
  
  Private
  ◦ Polynuclear Clusters in Magnetism and Porous Solids, The Robert A. Welch Foundation

*No report received from faculty member.*
• **SERVICE DURING 2008**

**University**  
▷ Committee/Panel: University W Course Advisory Committee (Member)

**College**  
▷ Service Position: Susan M. Arseven Memorial Award (Organizing Board)  
▷ Event: Sixteenth Annual Women in Science and Engineering Career Development Conference, Breaking Barriers Through Communication (Organizing Board)  
▷ Advisory Board: Women in Science and Engineering Executive Board (Member)  
▷ Committee/Panel: Ethel Ashworth-Tsutsui Memorial Awards in Research and Mentoring (Organizing Board)

**Department**  
▷ Service Position: Chemistry 320 Instrumental Analysis Laboratory (Coordinator), Graduate Studies (Associate Advisor)  
▷ Committee/Panel: Analytical Laboratories Review Committee (Member), Graduate Admissions and Review Committee (Member), Graduate Awards Committee (Member), Undergraduate Awards Committee (Member)

• **TEACHING ASSIGNMENTS DURING 2008**

**Spring**  
▷ CHEM 320. — *Instrumental Analysis Laboratory* (total enrollment: 20)  
▷ CHEM 686. — *Ethics in Chemical Research and Scholarship* (total enrollment: 60)

**Fall**  
▷ CHEM 317. — *Quantitative Analysis* (total enrollment: 22)  
▷ CHEM 320. — *Instrumental Analysis Laboratory* (total enrollment: 22)

• **PUBLICATIONS DURING 2008**  
• **TEACHING ASSIGNMENTS DURING 2008**

  **Spring**
  
  ▷ **CHEM 101. — Fundamentals of Chemistry I** (total enrollment: 215)

  *Hired 01/16/2008.*

  *No report received from faculty member.*
• CHAIRS/PROFESSORSHIPS
  ▶ E.L. Wehner-Welch Chair in Chemistry [1994]

• ADDITIONAL UNIVERSITY TITLES HELD DURING 2008
  ▶ Regents Professor, , [2008]
  ▶ Professor (J), Biochemistry and Biophysics, []
  ▶ Distinguished Professor, Molecular and Cellular Medicine, []

• SERVICE DURING 2008
  University
  ▶ Committee/Panel: Vice President for Research Search Advisory Committee (Member)

  College
  ▶ Committee/Panel: Tenure and Faculty Promotion Committee, TAMHSC College of Medicine (Member)

  Department
  ▶ Event: Seminar Program, Molecular and Cellular Medicine (Chair)

• TEACHING ASSIGNMENTS DURING 2008
  Spring
  ▶ BICH 672 — Biological Membranes (total enrollment: 15)
  ▶ BICH 691 — Research (total enrollment: 2)
  ▶ CHEM 691. — Research (total enrollment: 1)

  Summer
  ▶ BICH 691 — Research (total enrollment: 2)
  ▶ CHEM 691. — Research (total enrollment: 1)

  Fall
  ▶ BICH 672. — Biological Membranes (total enrollment: 18)
  ▶ BICH 691 — Research (total enrollment: 1)
  ▶ CHEM 691. — Research (total enrollment: 1)

• RESEARCH PROJECTS DURING 2008
  Federal
  ▶ Pore Formation by Cholesterol-Dependent Cytolysins, National Institute of Allergy and Infectious Diseases, coworkers: T. Sato (P)
Protein Trafficking and Dislocation at the ER Membrane, National Institute of General Medical Sciences, coworkers: N. Alder (P), B. Hou (P), P. Lin (P), P. Mayerhofer (P), C. Jongsma (G), J. Wahlman (G)

How Do Proteins Fold into Their Native and Functional In Vitro and in the Physiological Milieu of the Living Cell, National Science Foundation

PRESENTATIONS DURING 2008

“Fluorescence-Detected Protein Trafficking into and Out of the ER,” Departments of Cell Biology and of Developmental and Molecular Biology, Albert Einstein College of Medicine, New York, NY, January, 2008. (Invited)


“Fluorescence-Detected Protein Insertion Into and Retro-Translocation Out of the ER Membrane,” Department of Biological Sciences, University of Maryland Baltimore County, Baltimore, MD, March, 2008. (Invited)

“Functional Ramifications of Nascent Protein Folding Inside Membrane-bound Ribosomes,” Department of Biological Sciences, University of Maryland Baltimore County, Baltimore, MD, March, 2008. (Invited)

“How are Mitochondrial Proteins Imported and ERAD Substrates Retro-translocated through Membranes?,” Reilly Lectureship, Department of Chemistry and Biochemistry, University of Notre Dame, South Bend, IN, April, 2008. (Invited)

“How are Multi-spanning Membrane Proteins Threaded into the ER Membrane?,” Reilly Lectureship, Department of Chemistry and Biochemistry, University of Notre Dame, South Bend, IN, April, 2008. (Invited)

“Multi-spanning Membrane Protein Integration into the ER Membrane,” Cold Spring Harbor Meeting on Molecular Chaperones & Stress Responses, Cold Spring Harbor, NY, April, 2008. (Invited)

“Protein-Membrane Interactions,” Reilly Lectureship, Department of Chemistry and Biochemistry, University of Notre Dame, South Bend, IN, April, 2008. (Invited)

“FRET-Detected Folding and Biogenesis of Nascent Membrane Proteins,” The Sealy Center for Structural Biology Symposium, Galveston, TX, May, 2008. (Invited)

“Fluorescence-Detected Protein Trafficking at Membranes,” College of Medicine, Texas A&M Health Science Center, College Station, TX, June, 2008. (Invited)

“FRET-Detected Folding and Biogenesis of Nascent Membrane Proteins,” Institute of Molecular Biology, University of Oregon, Eugene, OR, June, 2008. (Invited)


“Fluorescence-Detected Nascent Membrane Protein Folding and Biogenesis,” Department of Chemistry and Biochemistry, University of Colorado, Boulder, CO, October, 2008. (Invited)

“Fluorescence-Detected Nascent Membrane Protein Folding and Biogenesis,” George Connell Lectureship, Department of Biochemistry, University of Toronto, Canada, November, 2008. (Invited)
• PUBLICATIONS DURING 2008


• ADDITIONAL UNIVERSITY TITLES HELD DURING 2008
  ➢ Associate Director, First Year Chemistry Program, Chemistry, //

• SERVICE DURING 2008

National
➢ Professional Affiliation: American Chemical Society-Chemical Education Division (Member)

Regional
➢ Service Position: American Chemical Society Local Chapter (Alternate Councilor)
➢ Event: 7th graders of Jane Long Middle School in Bryan (Demonstration Coordinator)

University
➢ Service Position: ACS Chemistry Open House and Science Exploratorium (Coordinator), Age of Oak (Faculty Advisor), Aggie School Volunteers (Faculty Advisor), ATMentors (Member), Calibrated Peer Review for Texas A&M University (Master Administrator), Graduate Teaching Academy (Mentor), Graduate Teaching Academy (Fellow), Rugby Little Sisters (Faculty Advisor), TA Training Program (Advisor), Texas Environmental Action Coalition (Faculty Advisor)
➢ Professional Affiliation: Organization of Professional Academic Lecturers (Co-Founder)
➢ Event: Center for Teaching Excellence Workshop (Co-instructor), Chemistry and Engineering MAES Science Extravaganza (Presenter)
➢ Committee/Panel: Academic Master Plan Engagement Roadmap Committee (Member), Academic Master Plan Steering Committee (Member), Faculty Senate Sub-committee on the Status of Non-Tenure Track Faculty (Co-Chair), GLBT Members of the University Community (ALLY)

College
➢ Event: All Chemistry Events and Pentathlon, Texas Science Olympiad (Coordinator), Brazos Valley Regional Science and Engineering Fair (Judge), Mitchell Institute for Fundamental Physics (Chemistry Coordinator), Texas A&M Regional Junior Science Bowl (Judge), Texas A&M Regional Science Bowl (Judge), Texas Science Olympiad Coaches Clinic (Presenter), Texas Science Olympiad Coaches Clinic (Co-Organizer)

Department
➢ Service Position: Chemistry 107 (Coordinator), Chemistry 116 (Coordinator), TA Teaching Mentor and Ombudsman (Mentor)
➢ Event: American Chemical Society Chemists Celebrating Earth Day (Coordinator), Chemistry Road Show (Presenter), Dr. K’s Invitational First Year Chemistry Dance Contest (Coordinator), Dr. K’s Invitational First Year Chemistry Poetry Jam (Coordinator), Engineering Day (Organizer), First Year Chemistry Study Hall and Computer Lab (Participant), Physics Festival (Presenter), Wacky Science Camp (Presenter)
Committee/Panel: TA Training (Speaker)

- **TEACHING ASSIGNMENTS DURING 2008**
  
  **Spring**
  > CHEM 101. — Fundamentals of Chemistry I (total enrollment: 522)
  
  **Fall**
  > CHEM 102. — Fundamentals of Chemistry II (total enrollment: 579)

- **PRESENTATIONS DURING 2008**
  
  - “Assessment of the Effect of International TAs on Student Attitude and Learning in a First Year Chemistry Laboratory Program,” 7th Annual Texas A&M Assessment Conference, College Station, TX, February, 2008. (Individual)
  
  
  - “Cosmetic Chemistry,” Hammond Oliver High School, Bryan, TX, April, 2008. (Individual)
  
  - “Can Writing Using Calibrated Peer Review be Effective as Optional Assignments?,” Binniel Conference on Chemical Education, Indiana University, Bloomington, IN, July, 2008. (Individual)
  
  - “Large Classrooms are Two-Way Streets,” Binniel Conference on Chemical Education, Indiana University, Bloomington, IN, July, 2008. (Individual)
  
  - “Calibrated Peer Review at Texas A&M University,” Bienniel Conference on Chemical Education, Purdue University, West Lafayette, IN, August, 2008. (Individual)
  
  - “How you as ITAs Influence Student Learning,” International TATEP & Evaluation Program, Texas A&M University, College Station, TX, August, 2008. (Individual)

- **PUBLICATIONS DURING 2008**
  
• ADDITIONAL UNIVERSITY TITLES HELD DURING 2008
  ▶ Professor (J), Physics, [2007]

• SERVICE DURING 2008

  International
  ▶ Editorial/Board: International Journal of Spectroscopy (Board Member), Journal of Molecular Structure (Editor)
  ▶ Committee/Panel: International Committee, European Congress on Molecular Spectroscopy (Elected Member)

  National
  ▶ Professional Affiliation: Alexander von Humboldt Association of America (President)

  University
  ▶ Committee/Panel: Council of Faculty Senate Speakers (Member)

  College
  ▶ Committee/Panel: International Programs Committee (Member)

  Department
  ▶ Committee/Panel: Chemistry Education Committee (Member), Faculty Awards Committee (Member), Graduate Student Awards Committee (Chair)

• TEACHING ASSIGNMENTS DURING 2008

  Spring
  ▶ CHEM 691. — Research (total enrollment: 4)

  Summer
  ▶ CHEM 691. — Research (total enrollment: 4)

  Fall
  ▶ CHEM 322. — Physical Chemistry for Engineers (total enrollment: 31)
  ▶ CHEM 681. — Seminar (total enrollment: 17)
  ▶ CHEM 691. — Research (total enrollment: 4)

• RESEARCH PROJECTS DURING 2008

  Federal
  ▶ Development of Submillimeter/Terahertz Instrumentation for Spectroscopy and Dynamics, National Science Foundation

  Private
(REN) Molecular Conformations and Vibrational Potential Energy Surfaces, The Robert A. Welch Foundation, coworkers: A. Al-Saadi (P), J. Yang (P), P. Boopalachandran (G), H. Chun (G), K. McCann (G), E. Ocola (G), M. Rishard (G)

• PRESENTATIONS DURING 2008

- “Spectroscopic Studies of the Electronic Excited States of Pyridine-d₀ and d₅, 2-Fluoro and 3-Fluoropyridine, and 1,3-Benzodioxan,” 2008. (Invited)
- “DFT and Ab Initio Studies of the Structure and Vibrational Spectra of Silacyclobutane and its Derivatives,” Austin Symposium on Molecular Structure, Austin, TX, March, 2008. (Poster Individual)
- “Spectroscopic Studies of the Electronic Excited States of Pyridine-d₀ and d₅, 2-Fluoro- and 3-Fluoropyridine, and 1,3-Benzodioxan,” Austin Symposium on Molecular Structure, Austin, TX, March, 2008. (Invited)
- “Ultraviolet, Infrared, and Raman Spectra of Pyridine and its Fluoro Derivatives,” Texas Section Spring 08 Meeting of the American Physical Society, Corpus Christi, TX, March, 2008. (Individual)
- “Vibrational Spectra and DFT Calculations of Dipicolinic Acid and Dinicotinic Acid and Their Dianions,” Austin Symposium on Molecular Structure, Austin, TX, March, 2008. (Poster Individual)

• PUBLICATIONS DURING 2008

• TEACHING ASSIGNMENTS DURING 2008

Spring
  ▷ CHEM 107. — General Chemistry for Engineering Students (total enrollment: 696)

Fall
  ▷ CHEM 101. — Fundamentals of Chemistry I (total enrollment: 426)

Hired 01/16/2008.

No report received from faculty member.
• ADDITIONAL UNIVERSITY TITLES HELD DURING 2008
  ▶ Director, Biology Interface Training Program, Chemistry, //

• SERVICE DURING 2008
  National
  ▶ Editorial/Board: *Journal of Biological Inorganic Chemistry* (Member)

  Department
  ▶ Committee/Panel: Academic Operations Committee (Member), Colloquium and Seminar Committee (Member), Graduate Awards Committee (Member), Graduate Curriculum Committee (Member), Research Infrastructure Committee (Member)

• TEACHING ASSIGNMENTS DURING 2008
  Spring
  ▶ CHEM 628. — *Coordination and Bioinorganic Chemistry* (total enrollment: 10)
  ▶ CHEM 681. — *Seminar* (total enrollment: 6)
  ▶ CHEM 689 — *Special Topics in* (total enrollment: 15)
  Fall
  ▶ CHEM 628. — *Coordination and Bioinorganic Chemistry* (total enrollment: 8)
  ▶ CHEM 681. — *Seminar* (total enrollment: 8)

• RESEARCH PROJECTS DURING 2008
  Federal
  ▶ (REN) Bioinorganic Chemistry of Carbon Monoxide Dehydrogenase, *National Institutes of Health*
  ▶ Bioinorganic Chemistry of Carbon Monoxide Dehydrogenase, *National Institutes of Health*, coworkers: X. Tan (Research Scientist)
  ▶ (REN) Synthetic Molecules in Biological Systems, *National Institutes of Health*
  ▶ Integrated Modeling and Analysis of Animal Cell Cytokinesis, *National Science Foundation*

  Private
  ▶ Probing Iron Metabolism in Mitochondria using EPR and Mossbauer Spectroscopy, *The Robert A. Welch Foundation*

• PRESENTATIONS DURING 2008
International Conference on Systems Biology, Gothenburg Sweden, September, 2008. (Poster Individual)

Fourth Asian Biological Inorganic Conference, Jeju Island, Korea, November, 2008. (Individual)

**PUBLICATIONS DURING 2008**


• **TEACHING ASSIGNMENTS DURING 2008**

  **Spring**
  - CHEM 491. — **Research** (total enrollment: 2)
  - CHEM 691. — **Research** (total enrollment: 2)

  **Summer**
  - CHEM 491. — **Research** (total enrollment: 2)
  - CHEM 691. — **Research** (total enrollment: 2)

  **Fall**
  - CHEM 491 — **Research** (total enrollment: 1)
  - CHEM 689. — **Special Topics in** (total enrollment: 6)
  - CHEM 691. — **Research** (total enrollment: 4)

• **PRESENTATIONS DURING 2008**
  - “Artificial Organisms with a 21st Amino Acid,” Albany State University, Albany, GA, October, 2008. (Individual)

• **PUBLICATIONS DURING 2008**
• SERVICE DURING 2008

University
▷ Committee/Panel: Executive Committee of the Center for Atmospheric Chemistry and the Environment (Chair)

College
▷ Committee/Panel: Information Technology Committee (Member)

Department
▷ Committee/Panel: Library Committee (Member), Phys/Nuc/Chemistry Division (Chair), Promotion and Tenure Committee (Chair)

• TEACHING ASSIGNMENTS DURING 2008

Spring
▷ CHEM 621. — Chemical Kinetics (total enrollment: 11)
▷ CHEM 691. — Research (total enrollment: 3)

Summer
▷ CHEM 691. — Research (total enrollment: 3)

Fall
▷ CHEM 648. — Principles of Quantum Mechanics (total enrollment: 13)
▷ CHEM 691. — Research (total enrollment: 3)

• RESEARCH PROJECTS DURING 2008

Federal
▷ Photoelectron-Vibration Coupling in Nonlinear Molecules, Department of Energy
▷ Resonant and Nonresonant Vibrational Effects in the Photoionization Dynamics of Asymmetric Systems, Department of Energy
▷ Development of Submillimeter/Terahertz Instrumentation for Spectroscopy and Dynamics, National Science Foundation
▷ Purchase of a Computer Cluster for Theoretical, Computational, and Cyber-Enabled Chemistry, National Science Foundation
▷ Spectroscopic and Computational Characterization of Non-Covalent Interactions, National Science Foundation

Private
▷ Nondipole Effects in Photoelectron Angular Distributions of Molecular Photoionization, The Robert A. Welch Foundation

• PRESENTATIONS DURING 2008

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"Molecular Frame, Recoil Frame, And Electron Frame Angular Distributions in Dissociative Photoionization of Small Molecules," Department of Physics, Kansas State University, Manhattan, KS, December, 2008. (Invited)

- **PUBLICATIONS DURING 2008**


• SERVICE DURING 2008

National
▷ Editorial/Board: NIH Review Panel (Member)
▷ Committee/Panel: American Heart Association, Proposal Review Panel (Member)

State
▷ Professional Affiliation: Texas Health and Biotechnology Institute (Member)
▷ Committee/Panel: Central Texas Science and Engineering Fair (Judge)

University
▷ Professional Affiliation: Cardiovascular Research Institute (Member)
▷ Committee/Panel: Texas A&M Institute of Food Science & Nutrition (Member)

Department
▷ Committee/Panel: Review Committee for Lichter Report on First Year Program (Chairman)

• TEACHING ASSIGNMENTS DURING 2008

Spring
▷ CHEM 315. — Quantitative Analysis (total enrollment: 28)
▷ CHEM 318. — Quantitative Analysis Laboratory (total enrollment: 22)
▷ CHEM 491. — Research (total enrollment: 2)
▷ CHEM 691. — Research (total enrollment: 3)

Summer
▷ CHEM 691. — Research (total enrollment: 5)

Fall
▷ CHEM 315. — Quantitative Analysis (total enrollment: 30)
▷ CHEM 318. — Quantitative Analysis Laboratory (total enrollment: 43)
▷ CHEM 491. — Research (total enrollment: 3)
▷ CHEM 691. — Research (total enrollment: 3)

• RESEARCH PROJECTS DURING 2008

Federal
▷ (REN) Lipoprotein Density Profiling for Clinical Studies, National Institutes of Health
▷ Lipoprotein Density Profiling for Clinical Studies, National Institutes of Health, coworkers: Z. Farwig (P), R. Chandra (G), L. Espinosa (G), R. Hernandez (G), S. Lester (G), M. Nowlin (G), J. Johnson (U), S. Swetch (U), S. Tilford (U)
No report received from faculty member.
ELMO J. MAWK

SERVICE DURING 2008

National
▷ Committee/Panel: Laboratory Assessment Examination Committee (Member)

College
▷ Event: Texas Junior Science and Humanities Symposium (Presentation Judge)

TEACHING ASSIGNMENTS DURING 2008

Spring
▷ CHEM 102. — Fundamentals of Chemistry II (total enrollment: 263)
▷ CHEM 111. — Fundamentals of Chemistry Laboratory I (total enrollment: 552)

Summer
▷ CHEM 111 — Fundamentals of Chemistry Laboratory I (total enrollment: 49)
▷ CHEM 112 — Fundamentals of Chemistry Laboratory II (total enrollment: 68)

Fall
▷ CHEM 101. — Fundamentals of Chemistry I (total enrollment: 249)
▷ CHEM 111. — Fundamentals of Chemistry Laboratory I (total enrollment: 2342)

PRESENTATIONS DURING 2008

▷ “The Creation and use of Screencasting for Macs,” Elmo Mawk and Vickie Williamson, Teaching with Technology Conference, Texas A&M University, College Station, TX, February, 2008. (Individual)


• SERVICE DURING 2008

Regional
▷ Professional Affiliation: Local Section of the American Chemical Society (Secretary)

University
▷ Committee/Panel: Polymer Technology Center (Member)

Department
▷ Research Group: Inorganic Division (Associate Member)
▷ Event: IUCCP Faculty Participant (Participant/Presenter)
▷ Committee/Panel: Graduate Student Recruiting Committee (Member)

• RESEARCH PROJECTS DURING 2008

Federal
▷ CAREER: Catalytic Aldimine Coupling: A Versatile Carbon-Carbon Bond Forming Reaction, National Science Foundation, coworkers: J. Grill (G)

University
▷ Homogeneous Catalysts Based on Silver, College of Science, coworkers: P. Zeits (G)
▷ Oxidation Catalysis with Nanoparticulate Nickel Oxide, College of Science, coworkers: J. Grill (G), J. Peacock (G)

Private
▷ Controlling Polyolefin Architectures with Sterically Expanded Transition Metal Polymerization Catalysts, The Robert A. Welch Foundation, coworkers: B. Duffus (G), C. Price (G), N. Rife (G), E. Schwerdtfeger (G), P. Zeits (G), R. Mitchell (U)

• PUBLICATIONS DURING 2008


Resigned 08/31/2008.

No report received from faculty member.
CHRISTINE A. MULLEN

SERVICE DURING 2008

National
▷ Professional Affiliation: American Chemical Society - Chemical Education and Biological Chemistry Divisions (Member)

TEACHING ASSIGNMENTS DURING 2008

Spring
▷ CHEM 222. — Elements of Organic and Biological Chemistry (total enrollment: 134)

Fall
▷ CHEM 222. — Elements of Organic and Biological Chemistry (total enrollment: 161)

No report received from faculty member.
SERVICE DURING 2008

Department

- Research Group: Laboratory for Molecular Structure and Bonding (Executive Director)

PUBLICATIONS DURING 2008


No report received from faculty member.
JOSEPH B. NATOWITZ

DISTINGUISHED PROFESSOR (979) 845-1411
CHEM-Physical/Nuclear Chemistry natowitz@comp.tamu.edu

- **CHAIRS/PROFESSORSHIPS**
  - Cyclotron Institute Bright Chair in Nuclear Science [2002]

- **SERVICE DURING 2008**
  
  **International**
  - Editorial/Board: NSERC(Canada) and Agence Nationale de la Recherche (Review: Proposals)
  - Committee/Panel: Oaxtepec, Mexico Nuclear Physics Symposium International Advisory Commitee (Member), Programs Advisory Committee, French-Belgian DEMON Detector Array (Chair)

  **National**

  **University**
  - Committee/Panel: Center for Teaching Excellence Advisory Committee (Member)

  **College**
  - Event: Expanding Your Horizons Program (Presenter)

- **TEACHING ASSIGNMENTS DURING 2008**
  
  **Spring**
  - CHEM 102.(H) — **Fundamentals of Chemistry II** (total enrollment: 19)
  - CHEM 228(H) — **Organic Chemistry II** (total enrollment: 19)
  - CHEM 691. — **Research** (total enrollment: 1)

  **Fall**
  - CHEM 107. — **General Chemistry for Engineering Students** (total enrollment: 275)
  - CHEM 691. — **Research** (total enrollment: 1)

- **RESEARCH PROJECTS DURING 2008**
  
  **Federal**
  - Cyclotron-Based Nuclear Science, *Department of Energy*
  - Highly Excited Nuclei, *Department of Energy*, coworkers: Z. Chen (P), J. Hagel (P), A. Kumar (P), R. Wada (P), C. Bottosso (G), M. Huang (G), L. Qin (G)

  **Private**
  - Nuclear Reaction Studies, *The Robert A. Welch Foundation*, coworkers: Z. Chen (P), J. Hagel (P), A. Kumar (P), R. Wada (P), C. Bottosso (G), M. Huang (G), L. Qin (G)
• PRESENTATIONS DURING 2008
  ▶ “Heavy Ion Reactions: Metastable Nuclei and the Nuclear Equation of State,” Texas A&M University, Commerce, College Station, TX, February, 2008. (Invited)
  ▶ “Probing Very Low Density Nuclear Matter in Heavy Ion Collisions,” American Chemical Society National Meeting, New Orleans, LA, April, 2008. (Invited)
  ▶ “Low Density Clustering in Near-Fermi-Energy Collisions,” Flerov Laboratory, Dubna, Russia, May, 2008. (Invited)
  ▶ “Probing Quantum Phase Changes in Nuclear Reactions,” APS Division of Nuclear Physics Annual Meeting, Oakland, CA, October, 2008. (il)

• PUBLICATIONS DURING 2008
• ADDITIONAL UNIVERSITY TITLES HELD DURING 2008
  ⊳ Associate Director, Center for Atmospheric Chemistry and the Environment, Chemistry,

• SERVICE DURING 2008

  National
  ⊳ Research Group: Project Research Team, Advanced Light Source, Berkeley, CA (Member)

  University
  ⊳ Research Group: Center for Atmospheric Chemistry and the Environment (Associate
  Director)

  College
  ⊳ Committee/Panel: Grievance Committee (Chair), Grievance Committee (Elected Mem-
  ber)

  Department
  ⊳ Service Position: Physical Chemistry Laboratory (Coordinator)
  ⊳ Committee/Panel: Departmental Executive Committee (Member), Faculty Search Com-
  mittee (Physical/Analytical) (Member), Graduate Admission and Review Committee
  (Member), Shop User Committee (Chair), Undergraduate Curriculum Committee (Chair)

• TEACHING ASSIGNMENTS DURING 2008

  Spring
  ⊳ CHEM 325. — **Physical Chemistry Laboratory I** (total enrollment: 9)
  ⊳ CHEM 491. — **Research** (total enrollment: 1)
  ⊳ CHEM 691. — **Research** (total enrollment: 7)

  Summer
  ⊳ CHEM 325. — **Physical Chemistry Laboratory I** (total enrollment: 15)
  ⊳ CHEM 491. — **Research** (total enrollment: 1)
  ⊳ CHEM 691. — **Research** (total enrollment: 12)

  Fall
  ⊳ CHEM 325. — **Physical Chemistry Laboratory I** (total enrollment: 26)
  ⊳ CHEM 691. — **Research** (total enrollment: 7)

• RESEARCH PROJECTS DURING 2008

  Federal
Purchase of a Computer Cluster for Theoretical, Computational, and Cyber-Enabled Chemistry, *National Science Foundation*


**State**


Understanding Hydrocarbon Oxidation Mechanisms through Isomeric Initiated Chemistry, *Texas Commission of Environmental Quality*, coworkers: B. Ghosh (G)

**Private**

TERC Project H101: Surface-Induced Oxidation of Organics in the Troposphere (SOOT), *Houston Advance Research Center*, coworkers: J. Geidosch (G), K. Perkins (G)

Photofragment Imaging of Atmospheric Free Radicals, *The Robert A. Welch Foundation*, coworkers: M. Grubb (G)

### PRESENTATIONS DURING 2008

- “Imaging Studies of the Photodissociation Dynamics of Halogen Oxides,” Northwest and Rocky Mountain Regional ACS Meeting, Park City, UT, 2008.( Individual)
- “Understanding Hydrocarbon Oxidation Mechanisms through Isomeric Initiated Chemistry,” TCEQ, Austin, TX, 2008.( Individual)

### PUBLICATIONS DURING 2008

Chemical Educator, vol. 13, 131.
JOANNA G. PELLOIS
SENIOR LECTURER (979) 845-3779
CHEM-Chemistry jpellois@mail.chem.tamu.edu

• SERVICE DURING 2008
  Department
  ▷ Event: Chemistry Open House (Participant)
  ▷ Committee/Panel: Undergraduate Awards Committee (Member)

• TEACHING ASSIGNMENTS DURING 2008
  Spring
  ▷ CHEM 112 — Fundamentals of Chemistry Laboratory II (total enrollment: 38)
  ▷ CHEM 481 — Seminar (total enrollment: 33)
  ▷ CHEM 697 — Methods in Teaching Chemistry Laboratory (total enrollment: 38)

• PUBLICATIONS DURING 2008
• SERVICE DURING 2008

College
▷ Event: Science Olympiad (Experimental Design Competition) (Coordinator)

Department
▷ Event: Chemistry Road Show (Coordinator), National Chemistry Week Open House (Volunteer)
▷ Committee/Panel: Faculty Subcommittee on the Status of Non-Tenure Track Faculty (Member)

• TEACHING ASSIGNMENTS DURING 2008

Spring
▷ CHEM 228. — Organic Chemistry II (total enrollment: 233)

Fall
▷ CHEM 227. — Organic Chemistry I (total enrollment: 270)

• PRESENTATIONS DURING 2008

▷ Iola Elementary, Iola ISD, Iola, TX, January, 2008.(Individual)
▷ Junior Science and Humanities Symposium (College of Science), College Station, TX, January, 2008.(Individual)
▷ Milam Elementary School, BISD, Bryan, TX, January, 2008.(Individual)
▷ Neal Elementary, BISD, Bryan, TX, January, 2008.(Individual)
▷ Thornton Elementary & Bonham Middle School, Temple ISD, Bryan, TX, January, 2008.(Individual)
▷ Aggieland Saturday, College of Science, TX, February, 2008.(Individual)
▷ Brazos Valley Children’s Museum, Bryan, TX, June, 2008.(Individual)
▷ Girl Scouts of the Brazos Valley, June, 2008.(Individual)
▷ Texas Reds Children’s Zone/Bryan Public Library, Bryan, TX, June, 2008.(Individual)
▷ Bryan + College Station Library System Summer Reading Program, July, 2008.(Individual)
▷ Boys & Girls Club of the Brazos Valley, August, 2008.(Individual)
▷ Boys & Girls Clubs, September, 2008.(Individual)
▷ Chemistry Open House, College Station, TX, October, 2008.(Individual)
▷ Aggie Polar Palooza, November, 2008.(Individual)
▷ Henderson Elementary, BISD, Bryan, TX, November, 2008.(Individual)
▷ South Knoll Elementary, CSISD, College Station, TX, November, 2008.(Individual)
▷ Team Liberty Science, CSISD, College Station, TX, November, 2008.(Individual)
▶ Expanding Your Horizons (College of Science), College Station, TX, December, 2008. (Individual)
▶ Navarro Elementary School, BISD, Bryan, TX, December, 2008. (Individual)
▶ Rock Prairie, CSISD, College Station, TX, December, 2008. (Individual)
• TEACHING ASSIGNMENTS DURING 2008

Spring
▷ CHEM 227. — Organic Chemistry I (total enrollment: 231)

Fall
▷ CHEM 228. — Organic Chemistry II (total enrollment: 205)
• TEACHING ASSIGNMENTS DURING 2008

Spring
▷ CHEM 102. — Fundamentals of Chemistry II (total enrollment: 476)
▷ CHEM 111. — Fundamentals of Chemistry Laboratory I (total enrollment: 24)

Fall
▷ CHEM 101. — Fundamentals of Chemistry I (total enrollment: 486)
▷ CHEM 111. — Fundamentals of Chemistry Laboratory I (total enrollment: 158)

No report received from faculty member.
• **CHAIRS/PROFESSORSHIPS**
  ▶ Davidson Chair in Science /2004/

• **ADDITIONAL UNIVERSITY TITLES HELD DURING 2008**
  ▶ Member, Interdisciplinary Faculty, Toxicology, /2006/
  ▶ Director, Center for Biological Nuclear Magnetic Resonance, Chemistry, //

• **SERVICE DURING 2008**

  **International**
  ▶ Committee/Panel: Excellence Initiative - Germany (Member), Study Panel - Deutsche Forschungsgemeinschaft (Member)

  **National**
  ▶ Editorial/Board: Archives of Biochemistry & Biophysics (Member), Biochemistry (Member), *BioOrganic Chemistry* (Member)

  **University**
  ▶ Advisory Board: Gene Technologies Laboratory (Member)
  ▶ Committee/Panel: Research Foundation - Principal Investigator Advisory Committee (Member)

  **College**
  ▶ Committee/Panel: Research Advisory Committee (Member)

  **Department**
  ▶ Research Group: Mass Spectrometry User Group (Member), NMR User Group (Member)
  ▶ Advisory Board: Protein Chemistry Laboratory (Member)
  ▶ Committee/Panel: External Review Committee (Member), Graduate Admissions and Review Committee (Member), Promotion and Tenure Committee (Member), Space Committee (Member), Undergraduate Curriculum Committee (Member)

• **TEACHING ASSIGNMENTS DURING 2008**

  **Spring**
  ▶ BICH 691. — Research (total enrollment: 1)
  ▶ CHEM 691. — Research (total enrollment: 5)

  **Summer**
  ▶ BICH 691. — Research (total enrollment: 1)
  ▶ CHEM 691. — Research (total enrollment: 7)

  **Fall**

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BICH 691. — Research (total enrollment: 1)
CHEM 681. — Seminar (total enrollment: 23)
CHEM 691. — Research (total enrollment: 7)

• RESEARCH PROJECTS DURING 2008

Federal
- Deciphering Enzyme Specificity, *National Institutes of Health*, coworkers: Y. Li (P), D. Xiang (P), C. Xu (P), J. Cummings (G), E. Ghanem (G), R. Hall (G), L. Lund (G), R. Marti-Arbona (G), T. Nguyen (G), C. Tsai (G), L. Williams (G)
- Enzymatic Detoxification of Organophosphate Nerve Agents, *National Institutes of Health*, coworkers: Y. Li (P), D. Xiang (P), C. Xu (P), J. Cummings (G), E. Ghanem (G), R. Hall (G), L. Lund (G), R. Marti-Arbona (G), T. Nguyen (G), C. Tsai (G), L. Williams (G)
- Graduate Training in Molecular Biophysics, *National Institutes of Health*
- (REN) Mechanism and Control of Urea Biosynthesis, *National Institutes of Health*
- (REN) Porphyrin and Corrinoid Biosynthesis, *National Institutes of Health*

State
- Phosphonate Mimics of Tetrahedral Intermediates as Potent Inhibitors of Enzyme Catalyzed Reactions, *Advanced Research Program/Advanced Technology Program*

Private
- (REN) Enzyme Reaction Mechanisms, *The Robert A. Welch Foundation*
- Enzyme Reaction Mechanisms, *The Robert A. Welch Foundation*
- (REN) Investigations of Enzyme Reaction Mechanisms, *The Robert A. Welch Foundation*, coworkers: Y. Li (P), D. Xiang (P), C. Xu (P), J. Cummings (G), E. Ghanem (G), R. Hall (G), L. Lund (G), R. Marti-Arbona (G), T. Nguyen (G), C. Tsai (G), L. Williams (G)

• PRESENTATIONS DURING 2008

- “Annotating Enzymes of Unknown and Uncertain Function,” Max Planck Institute for Developmental Biology, Tübingen, Germany, February, 2008. (Invited)
- “Annotating Enzymes of Unknown and Uncertain Function,” Institute for Biophysics, University Regensburg, Regensburg, Germany, March, 2008. (Invited)
- “Annotating Enzymes of Unknown and Uncertain Function,” EMBL Outstation, Hamburg, Germany, April, 2008. (Invited)
- “Deciphering Substrate Specificity for Enzymes of Unknown Function,” Biochemistry Department, Bayreuth University, Bayreuth, Germany, April, 2008. (Invited)

• PUBLICATIONS DURING 2008

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• SERVICE DURING 2008

National
▷ Editorial/Board: National Institutes of Health (Review: Proposals), NIH Director’s Pioneer Awards (Review: Proposals), NSF CAREER (Reviewer)
▷ Committee/Panel: UTSA External Scientific Advisory Committee (Member)

Department
▷ Committee/Panel: IT Committee (Member), P&T Committee (Member)

• TEACHING ASSIGNMENTS DURING 2008

Spring
▷ CHEM 228. — Organic Chemistry II (total enrollment: 35)
▷ CHEM 491. — Research (total enrollment: 2)
▷ CHEM 691. — Research (total enrollment: 11)

Summer
▷ CHEM 691. — Research (total enrollment: 10)

Fall
▷ CHEM 234. — Organic Synthesis and Analysis IV (total enrollment: 24)
▷ CHEM 491. — Research (total enrollment: 1)
▷ CHEM 691. — Research (total enrollment: 9)

• RESEARCH PROJECTS DURING 2008

Federal
▷ New Methods for Simultaneous Arming and SAR Studies of Natural Products, Department of Health and Human Services
▷ Novel Anticancer Fatty Acid Synthase Inhibitors, National Cancer Institute, coworkers: G. Ma (P), D. Castillo (G), Y. Oyola (G)
▷ Center on Proteolytic Pathways, National Center for Research Resources, coworkers: C. Zhou (P), S. Chamni (G)
▷ β-Lactones: Bioactive Targets and Vehicles for Synthesis, National Institute of General Medical Sciences, coworkers: W. Zhang (P), A. Matla (G), K. Morris (G), H. Nguyen (G)
▷ Synthetic/Mechanistic Studies of Bioactive Marine Agents, National Institute of General Medical Sciences, coworkers: S. Peddibhotla (P), L. Tang (P), K. Kong (G), F. Torres (G), S. Wang (G), M. Zancanella (G)
▷ Novel Asymmetric Routes to 2-Oxetanones and Their Applications, National Science Foundation

Private
Translocation of Virulence Proteins, *Cystic Fibrosis Foundation*, coworkers: S. Chamni (G)

Bioactive Natural Product Total Synthesis and Derivatization Studies Including the Use of $\beta$-Lactones (3-Oxetanones), *The Robert A. Welch Foundation*, coworkers: R. Duffy (G), G. Liu (G), T. Mitchell (G)

**PRESENTATIONS DURING 2008**

- "Total Synthesis of the Oroidin-Derived Marine Alkaloids,” University of Illinois, Urbana-Champaign, Chicago, IL, February, 2008. (Individual)
- "Beta-Lactone Inhibitors of Fatty Acid Synthase,” National ACS Meeting, New Orleans, LA, April, 2008. (Individual)
- "Biology and Inhibition of Fatty Synthase: A Promising Target for Cancer Chemotherapy,” Infinity Pharmaceuticals, Boston, MA, April, 2008. (Individual)
- "Chemical Synthesis of Bioactive Natural Products and the Versatility of Beta-Lactones,” GlaxoSmithKline and North Carolina University, Raleigh, NC, November, 2008. (Individual)

**PUBLICATIONS DURING 2008**


• ADDITIONAL UNIVERSITY TITLES HELD DURING 2008
  ▶ Graduate Advisor, Chemistry Graduate Advising Office, Chemistry, [2002]
  ▶ Associate Department Head, Chemistry, [1981]

• SERVICE DURING 2008
  University
  ▶ Committee/Panel: Laboratory Safety Sub-Committee (Member)
  College
  ▶ Committee/Panel: Graduate Instruction Committee (Member), Teaching Lab Safety Committee (Member), Technology-Mediated Instruction Committee (Member)
  Department
  ▶ Committee/Panel: Colloquium and Seminar Committee (Member), Graduate Admissions and Review Committee (Member), Graduate Curriculum Committee (Member), Internal Awards Committee (Member), Safety Committee (Chair), Space Committee (Chair), Undergraduate Awards Committee (Member)

• TEACHING ASSIGNMENTS DURING 2008
  Spring
  ▶ CHEM 470. — Industrial Chemistry (total enrollment: 36)
  ▶ CHEM 685. — Directed Studies (total enrollment: 2)
  ▶ CHEM 691. — Research (total enrollment: 6)
  Summer
  ▶ CHEM 691. — Research (total enrollment: 7)
  Fall
  ▶ CHEM 101.(H) — Fundamentals of Chemistry I (total enrollment: 24)
  ▶ CHEM 111.(H) — Fundamentals of Chemistry Laboratory I (total enrollment: 26)
  ▶ CHEM 691. — Research (total enrollment: 34)
• SERVICE DURING 2008
  National
  ▶ Committee/Panel: National Scholarship Committee (Member)
  
  University
  ▶ Advisory Board: Study Abroad Scholarship Review Committee (Member)
  
  Department
  ▶ Service Position: Quantitative Analysis Laboratory Program (Coordinator)
  ▶ Committee/Panel: Post-Tenure Review Committee (Chair), Search Committee for Nuclear Chemistry Chair (Member), Undergraduate Awards Committee (Member)
  
• TEACHING ASSIGNMENTS DURING 2008
  Summer
  ▶ CHEM 489. — Special Topics in (total enrollment: 11)

On leave.

No report received from faculty member.
• CHAIRS/PROFESSORSHIPS

• ADDITIONAL UNIVERSITY TITLES HELD DURING 2008
  ▶ Member, Interdisciplinary Faculty, Biotechnology, [2006]
  ▶ Department Head, Chemistry, [2006]

• AWARDS DURING 2008
  National
  ▶ ALA Innovation Award, LabAutomation

• SERVICE DURING 2008
  National
  ▶ Committee/Panel: NIH NCGG Site Panel/Scientific Review Group (Member), U.S. Department of Energy Oak Ridge National Lab (Review Panel)
  College
  ▶ Committee/Panel: Executive Committee (Member)
  Department
  ▶ Research Group: Laboratory for Biological Mass Spectrometry (Director)
  ▶ Advisory Board: Industry University Cooperative Chemistry Program (Representative)
  ▶ Committee/Panel: Chemistry Department Executive Committee (Chair), Executive Committee (Member)

• TEACHING ASSIGNMENTS DURING 2008
  Spring
  ▶ CHEM 691. — Research (total enrollment: 12)
  Summer
  ▶ CHEM 691. — Research (total enrollment: 12)
  Fall
  ▶ CHEM 691. — Research (total enrollment: 14)

• RESEARCH PROJECTS DURING 2008
  Federal
  ▶ (REN) Development of Laser Ion Beam Photodissociation Methods, Department of Energy
(REN) Nanoparticle Laser Desorption Ionization and IM-MS Applied Structural Mass Spectrometry, Department of Energy

Graduate Training in Molecular Biophysics, National Institutes of Health

Development of Advanced Structural Techniques for Gas-Phase Ions, National Science Foundation

MRI: Development of an IM-TOF Instrument for a Structural Biology Center, National Science Foundation

Private

Studies of the Structure of Gas-Phase Peptide Ions, The Robert A. Welch Foundation

• PRESENTATIONS DURING 2008


“Proteomics-Mass Spectrometry: Combining Electrophoresis with mass Spectrometry to Maximize Proteome Information,” Chemistry Colloquium, University of California, Riverside, CA, 2008.( Individual)


• PUBLICATIONS DURING 2008


JAMES C. SACCHETTINI

PROFESSOR (J) (979) 862-7637
CHEM-Proteins/Enzymes w/Lipid Biosynthesis sacchett@tamu.edu

- ADDITIONAL UNIVERSITY TITLES HELD DURING 2008
  - Director, Center of Structural Biology, Chemistry

- AWARDS DURING 2008
  - University
    - Distinguished Achievement Award, Association of Former Students
    - Patent and Innovation Award, Texas A&M University

- SERVICE DURING 2008
  - National
    - Committee/Panel: Internal Scientific Advisory Committee to Texas Institute for Genomic Medicine (Member), NIH Biological Chemistry & Macromolecular Biophysics Integrated Review Group (Member), Scientific Advisory Committee Bill & Melinda Gates Grand Challenges in Global Health Project ‘Drugs for Treatment of Latent Tuberculosis Infection’ (Member), Scientific Advisory Committee NIH-NIAID TB TARGET Panel (Member)
  - University
    - Committee/Panel: Center of Structural Biology, Institute of Biosciences and Technology (Director), Intellectual Property and Commercialization Working Committee (Member), Interdisciplinary Lifesciences Building Scientific Advisors Committee (Member), TB Structural Genomics Consortium (Director)

- TEACHING ASSIGNMENTS DURING 2008
  - Summer
    - CHEM 691. — Research (total enrollment: 7)

- RESEARCH PROJECTS DURING 2008
  - Federal
    - Inh-Induced Lysis of the HIV Ol M. tuberculosis, National Institutes of Health
    - Novel Drug Discovery Against P. falciparum ENR, National Institutes of Health
    - Structural Genomics of Persistence Targets from Mycobacterium Tuberculosis, National Institutes of Health
    - Tethered Domains as Regulatory Elements, National Institutes of Health
    - Acquisition of a High Resolution Data Collection System, National Science Foundation
  - Private
    - Integrated Methods for Tuberculosis Drug Discovery, Bill & Melinda Gates Foundation
    - Real Time Optical Imaging Solutions for Tuberculosis Infections, Bill & Melinda Gates Foundation
Chemical Validation of Malate Synthase as a Drug Target for Persistent TB, Global Alliance for TB Drug Development

Industrial
Research Program, GlaxoSmithKline

Presentations during 2008

“Novel Approaches to Antimicrobial therapy for Respiratory Infections,” NIAID Meeting, Bethesda, MD, 2008. (Invited)
Advances in Protein Crystallography & Virtual Discovery Meetings, Palm Springs, CA, 2008. (Individual)
University of Virginia, Charlottesville, VA, 2008. (Invited)

Publications during 2008


• TEACHING ASSIGNMENTS DURING 2008

Spring
▷ CHEM 227. — Organic Chemistry I (total enrollment: 175)
▷ CHEM 234. — Organic Synthesis and Analysis IV (total enrollment: 13)

Fall
▷ CHEM 227. — Organic Chemistry I (total enrollment: 276)

No report received from faculty member.
• ADDITIONAL UNIVERSITY TITLES HELD DURING 2008
  ▶ Member, Interdisciplinary Faculty, Computational Nanoscience and Materials - IGERT, [2006]
  ▶ Member, Interdisciplinary Faculty, Materials Science and Engineering, [2006]

• SERVICE DURING 2008

  State
  ▶ Committee/Panel: Materials Science and Engineering Ph.D. Program (Executive Committee)

  University
  ▶ Service Position: Texas A&M University, Chapter of Phi Lambda Upsilon (Advisor)
  ▶ Committee/Panel: Electron Microscopy Advisory Committee of the Microscopy and Imaging Center (Member)

  Department
  ▶ Event: Inorganic Student Research Seminars (Coordinator)
  ▶ Committee/Panel: Center for Integrated Microchemical Systems (Member)

• TEACHING ASSIGNMENTS DURING 2008

  Summer
  ▶ CHEM 691. — Research (total enrollment: 2)

• PUBLICATIONS DURING 2008

On leave.

No report received from faculty member.
EMILE A. SCHWEIKERT

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CHEM-Analytical Chemistry

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• ADDITIONAL UNIVERSITY TITLES HELD DURING 2008
  ▶ Director, Elemental Analysis Laboratory, Chemistry, [ ]
  ▶ Director, Center for Chemical Characterization and Analysis (CCCA), Chemistry, [ ]

• SERVICE DURING 2008

  Department
  ▶ Research Group: X-Ray Diffraction User Group (Member), Center for Chemical Characterization and Analysis (Director), Mass Spectrometry User Group (Member), NMR User Group (Member)
  ▶ Advisory Board: Industry University Cooperative Chemistry Program (Chair)
  ▶ Committee/Panel: Promotion and Tenure Committee (Chair), Shop Committee (Chair), Trace Elemental Analysis User Group (Chair)

• TEACHING ASSIGNMENTS DURING 2008

  Spring
  ▶ CHEM 691. — Research (total enrollment: 5)

  Summer
  ▶ CHEM 691. — Research (total enrollment: 4)

  Fall
  ▶ CHEM 601. — Analytical Chemistry I (total enrollment: 15)
  ▶ CHEM 691. — Research (total enrollment: 6)

• RESEARCH PROJECTS DURING 2008

  Federal
  ▶ Purchase of a Computer Cluster for Theoretical, Computational, and Cyber-Enabled Chemistry, National Science Foundation
  ▶ (REN) Secondary Ion Mass Spectrometry with Massive Projectiles, National Science Foundation, coworkers: S. Verkhoturov (P), L. Chen (G), K. Deal (G), D. DeBord (G), M. Eller (G), N. Hawbaker (G), A. Mukherjee (G), V. Pinnick (G), S. Rajagopalachary (G)
  ▶ (REN) Secondary Ion Mass Spectrometry with Massive Projectiles, National Science Foundation, coworkers: S. Verkhoturov (P), L. Chen (G), K. Deal (G), D. DeBord (G), M. Eller (G), N. Hawbaker (G), A. Mukherjee (G), V. Pinnick (G), S. Rajagopalachary (G)

  Private
  ▶ (REN) Studies in Surface Ionization, The Robert A. Welch Foundation, coworkers: S. Verkhoturov (P), L. Chen (G), K. Deal (G), D. DeBord (G), M. Eller (G), N. Hawbaker (G), A. Mukherjee (G), V. Pinnick (G), S. Rajagopalachary (G)
• PRESENTATIONS DURING 2008

• PUBLICATIONS DURING 2008
• **ADDITIONAL UNIVERSITY TITLES HELD DURING 2008**
  - Member, Interdisciplinary Faculty, Materials Science and Engineering, [2006]
  - Member, Interdisciplinary Faculty, Toxicology, [2006]
  - Director, First Year Chemistry Program, Chemistry, [2006]

• **SERVICE DURING 2008**

  **National**
  - Event: NSF CCLI Annual Meeting (Participant)
  - Editorial/Board: Funding Agencies of EU (Review: Proposals), *Variety of Scientific Journals* (Referee: Journals)
  - Committee/Panel: NIH SBCA Study Section (Review Panel)

  **Department**
  - Committee/Panel: First Year Chemistry Program (Director), Promotion and Tenure Committee (Member)

• **TEACHING ASSIGNMENTS DURING 2008**

  **Spring**
  - CHEM 491. — *Research* (total enrollment: 1)
  - CHEM 691. — *Research* (total enrollment: 6)
  - CHEM 697. — *Methods in Teaching Chemistry Laboratory* (total enrollment: 12)

  **Summer**
  - CHEM 691. — *Research* (total enrollment: 6)

  **Fall**
  - CHEM 101. — *Fundamentals of Chemistry I* (total enrollment: 231)
  - CHEM 691. — *Research* (total enrollment: 5)
  - CHEM 697. — *Methods in Teaching Chemistry Laboratory* (total enrollment: 29)

• **RESEARCH PROJECTS DURING 2008**

  **Federal**
  - Molecular Recognition in Dendrimers Based on Melamine, *National Institutes of Health*
  - Anchoring Organic Chemistry in Broad Context, *National Science Foundation*
  - Track 1, GK-12: Building Understanding Through Research Partnerships and IT, *National Science Foundation*

• **PRESENTATIONS DURING 2008**
  - 7th Int. Symp. on Polymer Therapeutics, Valencia, Spain, 2008. (Individual)
• PUBLICATIONS DURING 2008
• CHAIRS/PROFESSORSHIPS
  ▶ Davidson Chair in Science [2005]

• ADDITIONAL UNIVERSITY TITLES HELD DURING 2008
  ▶ Director, Nuclear Magnetic Resonance Laboratory (NMR), Chemistry, []

• AWARDS DURING 2008
  National
  ▶ Arthur C. Cope Scholar Award, American Chemical Society
  University
  ▶ Distinguished Achievement Award - Teaching, The Association of Former Students

• SERVICE DURING 2008
  National
  ▶ Editorial/Board: The Journal of Organic Chemistry (Associate Editor)
  College
  ▶ Committee/Panel: College Quality Enhancement Plan Council (Member)
  Department
  ▶ Research Group: Computer User Group (Member), NMR User Group (Chair)
  ▶ Committee/Panel: CBI Advertising Committee (Chair), Promotion and Tenure Commit-
    tee (Member), Undergraduate Curriculum Committee (Chair)

• TEACHING ASSIGNMENTS DURING 2008
  Spring
  ▶ CHEM 234. — Organic Synthesis and Analysis IV (total enrollment: 14)
  ▶ CHEM 491. — Research (total enrollment: 2)
  ▶ CHEM 691. — Research (total enrollment: 9)
  Summer
  ▶ CHEM 691. — Research (total enrollment: 14)
  Fall
  ▶ CHEM 491. — Research (total enrollment: 1)
  ▶ CHEM 646. — Organic Chemistry (total enrollment: 17)
  ▶ CHEM 691. — Research (total enrollment: 9)

• RESEARCH PROJECTS DURING 2008
Federal

▷ New Concepts in Organic Selectivity and Mechanisms, *National Institutes of Health*, coworkers: X. Bogle (G), S. Carroll (G), Z. Chen (G), C. Christian (G), S. Collins (G), J. Hirschi (G), O. James (G), A. Morales (G), Y. Oyola (G), R. Plata (G), L. Quijan (G), M. Vetticatt (G), W. Foley (U), E. West (U)

▷ Purchase of a Computer Cluster for Theoretical, Computational, and Cyber-Enabled Chemistry, *National Science Foundation*

Private

▷ Dynamic Isotope Effects, *The Robert A. Welch Foundation*, coworkers: J. Besinaiz (G), K. Kelly (G), S. Fergeson (U)

• PUBLICATIONS DURING 2008


*No report received from faculty member.*
• **SERVICE DURING 2008**
  
  **Department**
  - Committee/Panel: Admission and Retention Committee (Member), Undergraduate Curriculum Committee (Member)

• **TEACHING ASSIGNMENTS DURING 2008**
  
  **Spring**
  - CHEM 691. — *Research* (total enrollment: 4)

  **Summer**
  - CHEM 691. — *Research* (total enrollment: 4)

  **Fall**
  - CHEM 326. — *Physical Chemistry Laboratory II* (total enrollment: 24)
  - CHEM 328 — *Physical Chemistry II* (total enrollment: 46)
  - CHEM 601 — *Analytical Chemistry I* (total enrollment: 15)
  - CHEM 691. — *Research* (total enrollment: 4)

• **RESEARCH PROJECTS DURING 2008**
  
  **Private**
  - Real Time Investigation of the Dynamic Structural Changes of Metal Oxide Nanocrystals Using Time Resolved X-ray Spectroscopy, *American Chemical Society*
  - Ultrafast X-ray Absorption Studies of Structural Transformations in Semiconductor Nanocrystals, *The Robert A. Welch Foundation*, coworkers: H. Son (P), T. Chen (G), C. Hsia (G)

• **PRESENTATIONS DURING 2008**
  
“Optically Induced Magnetization Dynamics in Colloidal Magnetic Nanocrystals,” 60th Southeast Regional Meeting of the American Chemical Society, Nashville, TN, November, 2008.(Individual)


• PUBLICATIONS DURING 2008


MANUEL P. SORIAGA
PROFESSOR CHEM-Analytical Chemistry
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ADDITIONAL UNIVERSITY TITLES HELD DURING 2008
  ▶ Member, Interdisciplinary Faculty, Materials Science and Engineering, [2006]

SERVICE DURING 2008

International
  ▶ Advisory Board: Continuing International Conferences on Electrified Interfaces (Member)

National
  ▶ Professional Affiliation: Phi Lambda Upsilon (President)
  ▶ Editorial/Board: The Physics and Chemistry of Surfaces and Interfaces (Referee: Journals)

Department
  ▶ Committee/Panel: Faculty Awards Committee (Chair), First-Year Chemistry Program Director Search Committee (Member), Research Awards Committee (Chair), Service Courses Curriculum Committee (Member)

TEACHING ASSIGNMENTS DURING 2008

Spring
  ▶ CHEM 681. — Seminar (total enrollment: 23)
  ▶ CHEM 691. — Research (total enrollment: 5)

Summer
  ▶ CHEM 101. — Fundamentals of Chemistry I (total enrollment: 70)
  ▶ CHEM 102. — Fundamentals of Chemistry II (total enrollment: 86)
  ▶ CHEM 111. — Fundamentals of Chemistry Laboratory I (total enrollment: 49)
  ▶ CHEM 691. — Research (total enrollment: 7)

Fall
  ▶ CHEM 415. — Analytical Chemistry (total enrollment: 35)
  ▶ CHEM 491. — Research (total enrollment: 1)
  ▶ CHEM 681. — Seminar (total enrollment: 14)
  ▶ CHEM 691. — Research (total enrollment: 4)

No report received from faculty member.
• SERVICE DURING 2008

  Department
  ▶ Event: Quantitative Analysis Laboratory Chemistry 318 (Coordinator)
  ▶ Committee/Panel: Analytical Chemistry Laboratory Development Committee (Member),
    Undergraduate Curriculum Committee (Member)

• TEACHING ASSIGNMENTS DURING 2008

  Spring
  ▶ CHEM 317. — Quantitative Analysis (total enrollment: 19)
  ▶ CHEM 434. — Analytical Instrumentation Laboratory (total enrollment: 15)

  Summer
  ▶ CHEM 316. — Quantitative Analysis (total enrollment: 29)
  ▶ CHEM 318. — Quantitative Analysis Laboratory (total enrollment: 19)

  Fall
  ▶ CHEM 316. — Quantitative Analysis (total enrollment: 126)
  ▶ CHEM 318. — Quantitative Analysis Laboratory (total enrollment: 103)

• PUBLICATIONS DURING 2008
    Laboratory Manual.
• TEACHING ASSIGNMENTS DURING 2008

Spring

▷ CHEM 102. — Fundamentals of Chemistry II (total enrollment: 451)
▷ CHEM 111. — Fundamentals of Chemistry Laboratory I (total enrollment: 24)

Fall

▷ CHEM 101. — Fundamentals of Chemistry I (total enrollment: 493)
▷ CHEM 111. — Fundamentals of Chemistry Laboratory I (total enrollment: 120)

No report received from faculty member.
TEACHING ASSIGNMENTS DURING 2008

Spring
▷ CHEM 228. — **Organic Chemistry II** (total enrollment: 240)

Summer
▷ CHEM 228. — **Organic Chemistry II** (total enrollment: 116)
▷ CHEM 238. — **Organic Chemistry Laboratory** (total enrollment: 51)

Fall
▷ CHEM 227. — **Organic Chemistry I** (total enrollment: 258)
▷ CHEM 238. — **Organic Chemistry Laboratory** (total enrollment: 22)

*No report received from faculty member.*
• ADDITIONAL UNIVERSITY TITLES HELD DURING 2008
  ▶ Undergraduate Advisor, Chemistry Undergraduate Advising Office, Chemistry, //

• SERVICE DURING 2008

  University
  ▶ Service Position: Student Affiliate Chapter of the American Chemical Society (Faculty Advisor)

  Department
  ▶ Service Position: Undergraduate Studies (Associate Coordinator)
  ▶ Committee/Panel: Undergraduate Awards Committee (Member)

• TEACHING ASSIGNMENTS DURING 2008

  Spring
  ▶ CHEM 228. — Organic Chemistry II (total enrollment: 193)
  ▶ CHEM 491.(H) — Research (total enrollment: 1)

  Fall
  ▶ CHEM 100. — Horizons in Chemistry (total enrollment: 88)
  ▶ CHEM 227. — Organic Chemistry I (total enrollment: 174)
  ▶ CHEM 485. — Directed Studies (total enrollment: 1)
• **CHAIRS/PROFESSORSHIPS**
  > Gradiopore Chair in Separation Science in Chemistry \[2001\]

• **ADDITIONAL UNIVERSITY TITLES HELD DURING 2008**
  > Member, Interdisciplinary Faculty, Materials Science and Engineering, \[2006\]

• **SERVICE DURING 2008**
  **National**
  > Editorial/Board: Special Issue of *Electrophoresis* (Editor), *Electrophoresis* (Member), *Journal of Chromatography* (Member), *Journal of Separation Science* (Member)

  **Department**
  > Committee/Panel: Graduate Awards Committee (Member), Graduate Curriculum Committee (Member), Graduate Curriculum Committee (Chair), Library Committee (Member), Undergraduate Awards Committee (Member)

• **TEACHING ASSIGNMENTS DURING 2008**
  **Spring**
  > CHEM 691. — *Research* (total enrollment: 4)

  **Summer**
  > CHEM 691. — *Research* (total enrollment: 5)

  **Fall**
  > CHEM 315. — *Quantitative Analysis* (total enrollment: 16)
  > CHEM 318. — *Quantitative Analysis Laboratory* (total enrollment: 19)
  > CHEM 691. — *Research* (total enrollment: 4)

• **RESEARCH PROJECTS DURING 2008**
  **Federal**
  > Center on Proteolytic Pathways, *National Center for Research Resources*

• **PUBLICATIONS DURING 2008**

*No report received from faculty member.*
• AWARDS DURING 2008

  National
  ▶ Dreyfus Lectureship Award, American Chemical Society

• SERVICE DURING 2008

  International
  ▶ Event: 1st Euro-Mediterranean Conference on Marine Natural Products (Chair), 7th US Japan Seminar on the Biosynthesis of Natural Products (Chair)

  National
  ▶ Event: Texas Enzyme Mechanisms Conference (Chair)

  Department
  ▶ Committee/Panel: CBI Diversity Committee (Chair), Faculty Recruiting for Organic Divisions and Biological Divisions (Participant)

• TEACHING ASSIGNMENTS DURING 2008

  Spring
  ▶ CHEM 234. — Organic Synthesis and Analysis IV (total enrollment: 30)
  ▶ CHEM 691. — Research (total enrollment: 8)

  Summer
  ▶ CHEM 691. — Research (total enrollment: 8)

  Fall
  ▶ CHEM 234. — Organic Synthesis and Analysis IV (total enrollment: 23)
  ▶ CHEM 446. — Organic Chemistry III (total enrollment: 23)
  ▶ CHEM 691. — Research (total enrollment: 9)

• RESEARCH PROJECTS DURING 2008

  Private
  ▶ Probing the Biosynthesis of the Anti-Tumor Agent Azinomycin B, American Cancer Society, coworkers: H. Agbo (P), J. Foulke (P), G. Kelly (P), J. Pearson (P), V. Sharma (P)
  ▶ Harnessing Marine Derived Pharmaceuticals, Research Corporation
  ▶ Probing the Molecular Origin and Biological Actions of Substituted Cyclohexadienals, The Robert A. Welch Foundation, coworkers: B. Bench (G), V. Suarez (G)
• PRESENTATIONS DURING 2008
  ▶ “Accessing Marine Natural Products from Silent Biosynthetic Pathways,” Gordon Research Conference: Marine Natural Products, Ventura, CA, February, 2008.(Individual)
  ▶ “Inspiration from Nature: Natural Products in Drug Discovery Efforts,” Baylor University, Department of Chemistry, Waco, TX, September, 2008.( Individual)
  ▶ “Accessing Marine Natural Products from Silent Biosynthetic Pathways,” 1st Mediterranean Conference on Marine Natural Products, Sharm El Sheikh, Egypt, November, 2008.( Individual)
  ▶ “Natural Product Biosynthesis: Friend or Foe? From the Activation of Silent Pathways to Disease Causation,” ACS PROGRESS, Dreyfus Lectureship, California Institute of Technology, Department of Chemistry, Pasadena, CA, December, 2008.( Individual)

• PUBLICATIONS DURING 2008
• SERVICE DURING 2008

International
▷ Editorial/Board: International Research Travel Grant Program (Reviewer)

University
▷ Committee/Panel: Radiological Safety Committee (Member)

Department
▷ Committee/Panel: Colloquium and Seminar Committee (Chair), Faculty Teaching Awards Committee (Chair), Undergraduate Awards Committee (Member)

• TEACHING ASSIGNMENTS DURING 2008

Spring
▷ CHEM 327. — Physical Chemistry (total enrollment: 34)
▷ CHEM 681. — Seminar (total enrollment: 12)
▷ CHEM 691. — Research (total enrollment: 1)

Summer
▷ CHEM 691. — Research (total enrollment: 1)

Fall
▷ CHEM 101.(H) — Fundamentals of Chemistry I (total enrollment: 31)
▷ CHEM 111.(H) — Fundamentals of Chemistry Laboratory I (total enrollment: 28)
▷ CHEM 691. — Research (total enrollment: 1)

• RESEARCH PROJECTS DURING 2008

Private
▷ Excitation of Atoms and Molecules in Collisions with Fast, Highly-charged Ions, The Robert A. Welch Foundation, coworkers: V. Horvat (P)

• PRESENTATIONS DURING 2008

▷ “K and L X-ray Transitions in Multiply Ionized Atoms Produced in Heavy Ion Collisions,” 20th International Conference on Applications of Accelerators in Research and Industry, Ft. Worth, TX, August, 2008. (Individual)

• PUBLICATIONS DURING 2008


• CHAIRS/PROFESSORSHIPS
  ▶ Robert A. Welch Endowed Chair in Chemistry at the Institute of Biosciences and Technology [1990]

• SERVICE DURING 2008

  International
  ▶ Service Position: Served on Scientific, Academic, Governmental, and Industrial Affairs in Foreign Countries Including: Australia, Brazil, Canada, Costa Rica, Czechoslovakia, Denmark, England, France, Germany, Italy, Japan, Mexico, The Netherlands, Norway, Poland, Puerto Rico, South Korea, Sweden, and Switzerland (Co-convener)
  ▶ Professional Affiliation: Poland-United States Science Foundation (Co-Founder), Polish Academy of Sciences (Foreign Member)
  ▶ Event: The Japanese Biochemical Society in Kyoto, Japan (President Elect), The Korean Biochemical Society Meeting in Seoul, Korea (President Elect)
  ▶ Editorial/Board: International Bulletin of Molecular Medicine (Member)

  National
  ▶ Professional Affiliation: American Society for Biochemistry and Molecular Biology (President), Federation of American Societies for Experimental Biology (President)
  ▶ Event: Coalition of American Scientific Society Presidents (Organizer)
  ▶ Editorial/Board: Helen Keller Eye Research Foundation (Member)
  ▶ Editorial/Board: ASBMB Today (Member), Campaign for Medical Research, Board of Directors (Member), CHEMTRACTS-Biochemistry and Molecular Biology (Member), DNA Structure, Genomic Rearrangements, and Human Disease (Co-Organizer), NIH Study Section Committees (Panel), Invited Review for Special Issue of the Journal, DNA Repair (Reviewer), Journal of Biochemistry and Molecular Biology (Advisor), Journal of Experimental Therapeutics and Oncology (Associate Editor)
  ▶ Committee/Panel: American Academy of Microbiology, American Society of Microbiology (Fellow), American Society for Biochemistry and Molecular Biology Centennial Organization Committee (Member), American Society for Biochemistry and Molecular Biology Council (Member), American Society for Biochemistry and Molecular Biology Finance and Marketing Committees (Member), American Society for Biochemistry and Molecular Biology Membership Task Force (Member), American Society for Biochemistry and Molecular Biology Publications Committee (Member), American Society for Biochemistry and Molecular Biology, Search Committee for New Executive Officer (Member), Damon Ruyon-Walter Winchell Cancer Research Fund, National Steering Committee of Former Fellows (Member), Federation of American Societies for Experimental Biology Executive Director Search Committee (Member), Federation of American Societies for Experimental Biology Finance and Science Policy Committee (Member), Federation of American Societies for Experimental Biology Location Committee (Member), National Institute of Envi-
ronmental Health Sciences Directorship Search Committee (Member), National Institutes of Environmental Health Sciences, External Review Committee, Division of Extramural Research and Training (Member), National Institutes of Environmental Health Sciences, National Advisory Environmental Health Science Council (Member), National Institutes of Health, Site Visit Committee (Member), NIH, National Institute of Environmental Health Science Scientific Advisory Council (Member), Nominations Committee, American Society for Biochemistry and Molecular Biology (ASBMB) (Elected Member), U.S. National Committee, International Union of Biochemistry and Molecular Biology (Member), *Molecular and Cellular Proteomics* (Founding Associate Editor)

**State**

▷ Advisory Board: Baylor College Of Medicine, External Advisory Board, Specific Progress of Research Excellence in Prostate Cancer (Member)

▷ Committee/Panel: Cullen College of Engineering, University of Houston, Engineering Leadership Board (Member)

*Retired 08/31/2008.*

*No report received from faculty member.*
VICKIE M. WILLIAMSON

SENIOR LECTURER
CHEM-First Year Chemistry

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• SERVICE DURING 2008

National
▷ Event: Biennial Conference on Chemical Education (Exhibits Chair)
▷ Editorial/Board: Chemical Education Research Section, Journal of Chemical Education (Feature Editor), Journal for Science Education and Technology (Member), Journal of Chemical Education (Reviewer), School Science and Mathematics Journal (Associate Editor)
▷ Committee/Panel: ACS General Chemistry Conceptual Exam Chairperson (Chair), Awards Committee Member, School Science and Mathematics Association (Member)

State
▷ Committee/Panel: Region V, Associated Chemistry Teachers of Texas (Director)

• TEACHING ASSIGNMENTS DURING 2008

Spring
▷ CHEM 102. — Fundamentals of Chemistry II (total enrollment: 499)
▷ CHEM 111. — Fundamentals of Chemistry Laboratory I (total enrollment: 49)

Summer
▷ CHEM 684. — Professional Internship (total enrollment: 1)

Fall
▷ CHEM 101. — Fundamentals of Chemistry I (total enrollment: 529)
▷ CHEM 111. — Fundamentals of Chemistry Laboratory I (total enrollment: 46)

• PRESENTATIONS DURING 2008

▷ “The Creation & Use of Screencasting for Macs Paper,” Texas A&M University, College Station, TX, February, 2008. (Individual)
▷ “Creation and Use of Screencasts for Large Lecture Exam Review Using Macintosh Computers: Part 2,” 20th Biennial Conference on Chemical Education, Bloomington, IN, July,
2008.( Individual)
▷ “Teaching General Chemistry for Student Understanding: Research Findings and Teaching Techniques,” 20th Biennial Conference on Chemical Education, Bloomington, IN, July, 2008.( Individual)

- PUBLICATIONS DURING 2008
TEACHING ASSIGNMENTS DURING 2008

Spring
▷ CHEM 691. — Research (total enrollment: 1)

Summer
▷ CHEM 491. — Research (total enrollment: 1)
▷ CHEM 691. — Research (total enrollment: 1)

Fall
▷ CHEM 610. — Organic Reactions (total enrollment: 11)
▷ CHEM 681. — Seminar (total enrollment: 25)
▷ CHEM 689 — Special Topics in (total enrollment: 4)
▷ CHEM 691. — Research (total enrollment: 1)

RESEARCH PROJECTS DURING 2008

Private
▷ Synthesis of the Carbocyclic Core of Zoanthamines, The Robert A. Welch Foundation, coworkers: L. Fang (P)

PRESENTATIONS DURING 2008

▷ “Synthesis and Mode of Action Study of Bioactive Natural Products,” CBI Research Conference, Texas A&M University, College Station, TX, August, 2008. (Individual)

PUBLICATIONS DURING 2008

• SERVICE DURING 2008

University
▷ Service Position: Chapter of the Brazos Valley Coalition Against the War (Faculty Advisor), Texas A&M University (ALLY)

Department
▷ Committee/Panel: Computer Committee (Member), Information and Communications Technology Committee (Member), Phi Beta Kappa (Vice President)

• TEACHING ASSIGNMENTS DURING 2008

Spring
▷ CHEM 328 — Physical Chemistry II (total enrollment: 15)
▷ CHEM 691. — Research (total enrollment: 1)
Summer
▷ CHEM 327 — Physical Chemistry (total enrollment: 24)
▷ CHEM 691. — Research (total enrollment: 2)
Fall
▷ CHEM 328 — Physical Chemistry II (total enrollment: 22)
▷ CHEM 691. — Research (total enrollment: 1)

• RESEARCH PROJECTS DURING 2008

Federal
▷ Purchase of a Computer Cluster for Theoretical, Computational, and Cyber-Enabled Chemistry, National Science Foundation

Private
▷ Electron-Molecule Resonances from Multiconfigurational Self-Consistent Field and Multiconfigurational Electron Propagator Methods with Complex Scaled Hamiltonians, The Robert A. Welch Foundation

• PRESENTATIONS DURING 2008

▷ “Investigation of Electron-Atom/Molecule Scattering Resonances Using a Complex Multiconfigurational Self-Consistent Field Method (CMCSCF),” Trends in Quantum Chemistry A Meeting on the Future Purposes and Methods Lundbeck Foundation Center for Theoretical Chemistry at Aarhus University, Aarhus, Denmark, December, 2008.( Individual)

• PUBLICATIONS DURING 2008

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• ADDITIONAL UNIVERSITY TITLES HELD DURING 2008
  ▶ Associate Dean for Faculty Affairs, Office of Diversity, College of Science, [2008]
  ▶ Associate Dean for Diversity, Office of Diversity, College of Science, [2004]

• AWARDS DURING 2008
  College
  ▶ Distinguished Achievement Award - Teaching, The Association of Former Students

• SERVICE DURING 2008
  National
  ▶ Committee/Panel: APS Division of Nuclear Physics Education Committee (Member), Gender Equity: Strengthening the Physics Enterprise in Universities and National Laboratories Organizing Committee (Member), Nuclear Science Advisory Committee: Long Range Plan Writing Group (Member), Women Encouraging the Competitive Advancement in Nuclear Science (Executive Committee)

  University
  ▶ Service Position: Texas A&M University (Mediator)
  ▶ Committee/Panel: Climate and Diversity (Councilor), Work-Life Committee (Chair)

  College
  ▶ Committee/Panel: Diversity Committee (Chair), Executive Committee (Member)

  Department
  ▶ Committee/Panel: Faculty Awards Committee for Teaching/Service (Member)

• TEACHING ASSIGNMENTS DURING 2008
  Spring
  ▶ CHEM 491. — Research (total enrollment: 1)
  ▶ CHEM 691. — Research (total enrollment: 5)

  Summer
  ▶ CHEM 691. — Research (total enrollment: 5)

  Fall
  ▶ CHEM 464. — Nuclear and Radiochemistry (total enrollment: 15)
  ▶ CHEM 491. — Research (total enrollment: 1)
  ▶ CHEM 691. — Research (total enrollment: 5)

• RESEARCH PROJECTS DURING 2008
Federal
▷ Cyclotron-Based Nuclear Science, Department of Energy, coworkers: G. Souliotis (Associate Research Scientist), S. Galanopoulos (P), Z. Kohley (G), L. May (G), D. Shetty (G), S. Soisson (G), B. Stein (G), S. Wuenschel (G), R. Dienhoff (U), J. Erchinger (U), A. Grup (U), K. Huseman (U), W. Smith (U), J. Sonne (U)
▷ Expanding Opportunities through the Science Scholars Program, National Science Foundation
▷ Professional Development Skills for Women, National Science Foundation
▷ REU Site: Nuclear and Particle Science at Texas A&M University, National Science Foundation, coworkers: K. Farnsworth (U), W. Flanagan (U), P. Geffert (U), L. Greenspan (U), M. Hernberg (U), A. Hernley (U), A. Hinojosa-Alvarado (U), A. Licata (U), M. Mehlman (U), E. Navarro (U), J. Nolan (U), S. Witham (U), E. Wunder (U)

Private
▷ (REN) The Equation of State for a Two-Component Nuclear System, The Robert A. Welch Foundation, coworkers: G. Souliotis (Associate Research Scientist), S. Galanopoulos (P), Z. Kohley (G), L. May (G), D. Shetty (G), S. Soisson (G), B. Stein (G), S. Wuenschel (G), R. Dienhoff (U), J. Erchinger (U), A. Grup (U), K. Huseman (U), W. Smith (U), J. Sonne (U)
▷ (REN) The Equation of State for a Two-Component Nuclear System, The Robert A. Welch Foundation, coworkers: G. Souliotis (Associate Research Scientist), S. Galanopoulos (P), Z. Kohley (G), L. May (G), D. Shetty (G), S. Soisson (G), B. Stein (G), S. Wuenschel (G), R. Dienhoff (U), Erchinger (U), A. Grup (U), K. Huseman (U), W. Smith (U), J. Sonne (U)

• PRESENTATIONS DURING 2008
▷ “Communication Skills, Professional Development,” The Status and Future of Graduate Education in Physics, College Park, MD, February, 2008.( Individual)
▷ “Successful Strategies for Increasing the Number of Female Faculty in the College of Science at Texas A&M University: How we went from 17 to 32,” Kansas State University, Manhattan, KS, February, 2008.( Individual)
▷ “What we can learn about the Symmetry Energy of the Nuclear Equation of State from Heavy-Ion Collisions?,” American Chemical Society Meeting, April, 2008.( Individual)
▷ “Recipient Obligations Under Federal Equal Opportunity Law as a Condition of Funding: from the Prospective of a Professor and PI,” 2nd Annual Technical Assistance Capacity Building Conference for Minority Serving Institutions, Dallas, TX, September, 2008.( Individual)
▷ “Nuclear Equation of State: What can we learn about Neutron Stars from Atomic Nuclei?,” Division of Nuclear Physics Meeting, October, 2008.( Individual)
▷ “Nuclear Reactions: Exploring phase Transitions in Excited Nuclear Material,” University of Oklahoma, Norman, OK, December, 2008.( Individual)
• PUBLICATIONS DURING 2008
YANJIE ZHANG
LECTURER (979) 845-7638
CHEM yzhang@mail.chem.tamu.edu

• TEACHING ASSIGNMENTS DURING 2008
  
  Fall
  ▶ CHEM 326. — Physical Chemistry Laboratory II (total enrollment: 14)

• PUBLICATIONS DURING 2008

Hired 09/01/2008.

No report received from faculty member.
• ADDITIONAL UNIVERSITY TITLES HELD DURING 2008
  ▶ Director, Center for Atmospheric Chemistry and the Environment, Chemistry, []

• TEACHING ASSIGNMENTS DURING 2008

  Spring
  ▶ ATMO 602 — Atmospheric Physics (total enrollment: 16)

  Fall
  ▶ ATMO 613 — Advanced Atmospheric Chemistry (total enrollment: 4)

• RESEARCH PROJECTS DURING 2008

  Federal
  ▶ Laboratory Investigation of Mixing States and Optical and Physical Properties of Soot-Containing Aerosol, Department of Energy
  ▶ Field Measurements of Gaseous Inorganic and Organic Compounds during TexASQ II, Environmental Protection Agency
  ▶ Investigation of Urban and Regional Aerosol Formation and Transformation in China and Associated Climate Effects, National Science Foundation

  State
  ▶ An Integrated Experimental and Modeling Study for Improving Mercury Chemical Mechanism in Atmospheric Mercury Models, Texas Air Research Center

  Private
  ▶ TERC Project H101: Surface-Induced Oxidation of Organics in the Troposphere (SOOT), Houston Advance Research Center
  ▶ Chemical Kinetics and Mechanism of Hydrocarbon Oxidation, The Robert A. Welch Foundation

• PRESENTATIONS DURING 2008
  ▶ “VOC measurements using PTR-MS during TexAQS II 2006,” 10th Conference on Atmospheric Chemistry, American Meteorological Society (AMS) Meeting, New Orleans, LA,
January, 2008. (Individual)


- PUBLICATIONS DURING 2008


SEC. 6.1 \hspace{1cm} PROFESSIONAL ACTIVITIES \hspace{1cm} 309
• SERVICE DURING 2008
  National
  ▶ Event: Metal-Organic Frameworks: What are They Good for? (Organizer)

• TEACHING ASSIGNMENTS DURING 2008
  Fall
  ▶ CHEM 433 — Advanced Inorganic Chemistry Laboratory (total enrollment: 1)
  ▶ CHEM 691. — Research (total enrollment: 1)

• RESEARCH PROJECTS DURING 2008
  Federal
  ▶ A Biomimetic Approach to New Adsorption Hydrogen Storage Metal-Organic Frameworks, Department of Energy
  ▶ CAREER: From Biomimetic Reaction Platforms to Nanostructured Artificial Enzymes, National Science Foundation

• PUBLICATIONS DURING 2008


_Hired 08/01/2008._
7. Research Activity, 2008

This section contains information on all funded research activity for the calendar year 2008. Information was initially reported by faculty and verified whenever possible through the granting agency. Because of calculations and rounding there is a small margin of error.

Information reported by faculty:

▶ Title
▶ Granting Agency
▶ PIs, Co-PIs, and co-workers (internal/external)
▶ Total Funding
▶ Indirect Costs
▶ Start & End Dates

Calendar year calculations:

▶ Total - Indirect = Direct
▶ # Days Total Grant = End Date - Start Date
▶ Daily Grant Award = Total Funding Reported / # Days Total Grant
▶ Grant Award for 2008 = # Days 2008 × Daily Grant Award
### 7.1 Summary of Research Support, 2008

<table>
<thead>
<tr>
<th>Grantee</th>
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<td><strong>Aberdeen Proving Ground</strong></td>
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<tr>
<td>Gabbai, F.P.</td>
<td>Neutral Bidentate Lewis Acids as Fluoride Probes</td>
<td>10/1/2006</td>
<td>9/30/2008</td>
<td>74,795</td>
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<td><strong>Air Force Office of Scientific Research</strong></td>
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<td>Hall, M.B.</td>
<td>(REN) Modeling Interfaces through an Extension of Continuum Mechanics to the Nanoscale with Application to Fracture, Debonding, and Composites, (with: M. Hall, J. Walton)</td>
<td>1/1/2008</td>
<td>12/31/2010</td>
<td>38,710</td>
<td>16,439</td>
<td>55,149</td>
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<td><strong>Subtotal: Air Force Office of Scientific Research</strong></td>
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<td>38,710</td>
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<td><strong>Battelle - Pacific Northwest National Laboratory</strong></td>
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<td>Goodman, D.</td>
<td>Surface Chemistry of Oxides</td>
<td>1/15/2005</td>
<td>2/28/2008</td>
<td>6,442</td>
<td>2,931</td>
<td>9,373</td>
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<td><strong>Subtotal: Battelle - Pacific Northwest National Laboratory</strong></td>
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<td>6,442</td>
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<tr>
<td>Gabbai, F.P.</td>
<td>Project 1, Aim 2-Synthesis of Novel Fluoride Sensing Compounds for the Bioscavenger U54 Center of Excellence Grant from NINDS</td>
<td>10/20/2007</td>
<td>9/19/2009</td>
<td>46,168</td>
<td>7,471</td>
<td>53,639</td>
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<td>Gabbai, F.P.</td>
<td>Rational Design of hPON Mutants</td>
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<td>Dunbar, K.R.</td>
<td>Design Principles of Nanomagnets Based on Molecules: Investigation of Spin, Orbital, and Molecular Shape Anistrophies</td>
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<td>8/31/2008</td>
<td>149,795</td>
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<td>Natowitz, J.B.</td>
<td>Highly Excited Nuclei</td>
<td>1/1/2008</td>
<td>12/31/2010</td>
<td>290,597</td>
<td>21,667</td>
<td>312,263</td>
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<td>Zhang, R.</td>
<td>Laboratory Investigation of Mixing States and Optical and Physical Properties of Soot-Containing Aerosol</td>
<td>9/1/2006</td>
<td>8/31/2009</td>
<td>69,749</td>
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**Subtotal: Department of Energy**

| 1,489,149 | 216,653 | 1,705,802 |

**Department of Health and Human Services**

| Cremer, P.S. | Protein Supported Lipid Bilayers as a Mimic of Native Biological Membranes, (with: P. Cremer, A. Diaz) | 7/1/2005   | 6/30/2008  | 2,352      | 0          | 2,352     |

SEC. 7. RESEARCH ACTIVITY 315
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<td>Romo, D.</td>
<td>New Methods for Simultaneous Arming and SAR Studies of Natural Products</td>
<td>9/1/2008</td>
<td>8/31/2011</td>
<td>100,564</td>
<td>30,655</td>
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<td>Zhang, R.</td>
<td>Field Measurements of Gaseous Inorganic and Organic Compounds during TexASQ II</td>
<td>9/1/2007</td>
<td>8/31/2009</td>
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<td>Romo, D.</td>
<td>Center on Proteolytic Pathways, (with: D. Romo, G. Vigh)</td>
<td>8/1/2007</td>
<td>7/31/2009</td>
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<td>Vigh, G.</td>
<td>Center on Proteolytic Pathways, (with: D. Romo, G. Vigh)</td>
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<td>Cremer, P.S.</td>
<td>(REN) Creating Platforms for the Proteomics of Membrane Proteins</td>
<td>12/1/2008</td>
<td>11/30/2012</td>
<td>21,884</td>
<td>1,917</td>
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<td>Johnson, A.E.</td>
<td>Protein Trafficking and Dislocation at the ER Membrane</td>
<td>7/1/2004</td>
<td>6/30/2008</td>
<td>121,493</td>
<td>55,279</td>
<td>176,773</td>
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<td>Romo, D.</td>
<td>β-Lactones: Bioactive Targets and Vehicles for Synthesis</td>
<td>2/1/2004</td>
<td>1/31/2008</td>
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<td>Fitzpatrick, P.</td>
<td>Enzymes of Neurotransmitter Biosynthesis</td>
<td>12/1/2003</td>
<td>5/30/2008</td>
<td>78,930</td>
<td>34,887</td>
<td>113,817</td>
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<td>Lindahl, P.A.</td>
<td>(REN) Bioinorganic Chemistry of Carbon Monoxide Dehydrogenase</td>
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<td>9/30/2012</td>
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<td>Rauschel, F.M.</td>
<td>(REN) Mechanism and Control of Urea Biosynthesis</td>
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<td>74,589</td>
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SEC. 7. RESEARCH ACTIVITY 317
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<td>Sacchettini, J.C.</td>
<td>Inh-Induced Lysis of the HIV 01 M. tuberculosis</td>
<td>5/1/2004</td>
<td>4/30/2009</td>
<td>15,864</td>
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<td>Sacchettini, J.C.</td>
<td>Tethered Domains as Regulatory Elements</td>
<td>1/1/2003</td>
<td>6/30/2010</td>
<td>2,000</td>
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<td>Simanek, E.E.</td>
<td>Molecular Recognition in Dendrimers Based on Melamine</td>
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<td>6/30/2011</td>
<td>307,000</td>
<td>64,497</td>
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- **Subtotal: National Institutes of Health**

|                      | 2,635,763 | 718,615 | 3,354,378 |

- **National Science Foundation**

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<td>Batteas, J.D.</td>
<td>Probing the Role of Surface Defects and Disorder on the Tribiology of Nanoscopic Contacts</td>
<td>7/1/2008</td>
<td>6/30/2011</td>
<td>23,343</td>
<td>9,048</td>
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<td>Bergbreiter, D.E.</td>
<td>Designing New Soluble Polymers to Facilitate Separations and Reactions</td>
<td>1/1/2005</td>
<td>12/31/2009</td>
<td>27,457</td>
<td>7,943</td>
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| Subtotal: U.S. Civilian Research and Development Foundation 7,065 0 7,065 |

| Subtotal: Westinghouse Savannah River 16,261 7,399 23,659 |

*Subtotal: Federal Agencies 8,220,432 1,673,124 9,893,556

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| Subtotal: Cummins Corporation 14,444 0 14,444 |

<p>| Subtotal: Edwards Nanoscience, Inc 14,444 0 14,444 |</p>
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SEC. 7. RESEARCH ACTIVITY 323
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* Bill & Melinda Gates Foundation

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* Camille and Henry Dreyfus Foundation

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* Cystic Fibrosis Foundation

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* Electronic Bio Sciences

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* Global Alliance for TB Drug Development

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* Subtotal: Private/Non-Profit Agencies 3,443,660 57,217 3,400,878

**State Agencies**

- **Advanced Research Program/Advanced Technology Program**

  Raushel, F.M.  Phosphonate Mimics of Tetrahedral Intermediates as Potent Inhibitors of Enzyme Catalyzed Reactions 5/15/2008 5/14/2010 47,325 0 47,325

  * Subtotal: Advanced Research Program/Advanced Technology Program 47,325 0 47,325

- **Energy Resources Program**


  * Subtotal: Energy Resources Program 133,882 0 133,882

- **Texas Air Research Center**

  North, S.W.  Development and Deployment of a FAGE Instrument for Urban Hox Measurements 9/1/2008 8/31/2009 8,310 0 8,310


  * Subsubtotal: Texas Air Research Center 24,391 0 24,391

- **Texas Commission of Environmental Quality**

  North, S.W.  Understanding Hydrocarbon Oxidation Mechanisms through Isomeric Initiated Chemistry 1/1/2008 12/30/2008 20,094 0 20,094

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- **Bevan, J.W.**

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- **Burgess, K.**

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- **Clearfield, A.**

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**Darensbourg, D.J.**

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**Darensbourg, N.Y.**

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| National Science Foundation | Spectroscopic and Computational Characterization of Non-Covalent Interactions, (with: J. Bevan, R. Lucchese) | 8/15/2006   | 7/31/2009   | 46,063 | 19,779   | 65,842   |
| The Robert A. Welch Foundation | Nondipole Effects in Photoelectron Angular Distributions of Molecular Photoionization | 6/1/2006    | 5/31/2009   | 80,000 | 0        | 80,000   |
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**Romo, D.**

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<td>Department of Energy</td>
<td>Laboratory Investigation of Mixing States and Optical and Physical Properties of Soot-Containing Aerosol</td>
<td>9/1/2006</td>
<td>8/31/2009</td>
<td>69,749</td>
<td>0</td>
<td>69,749</td>
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<td>Environmental Protection Agency</td>
<td>Field Measurements of Gaseous Inorganic and Organic Compounds during TexASQ II</td>
<td>9/1/2007</td>
<td>8/31/2009</td>
<td>23,571</td>
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<td>23,571</td>
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<td>National Science Foundation</td>
<td>Investigation of Urban and Regional Aerosol Formation and Transformation in China and Associated Climate Effects</td>
<td>7/1/2007</td>
<td>6/30/2010</td>
<td>133,333</td>
<td>0</td>
<td>133,333</td>
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<td>Houston Advance Research Center</td>
<td>TERC Project H101: Surface-Induced Oxidation of Organics in the Troposphere (SOOT), (with: S. North, R. Zhang)</td>
<td>5/1/2008</td>
<td>12/31/2008</td>
<td>183,333</td>
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<td>The Robert A. Welch Foundation</td>
<td>Chemical Kinetics and Mechanism of Hydrocarbon Oxidation</td>
<td>6/1/2007</td>
<td>4/30/2010</td>
<td>60,000</td>
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<tr>
<td>* Subtotal Zhang, E.</td>
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<td>486,067</td>
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<td>* Zhou, H.</td>
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<td>53,988</td>
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<td>* Subtotal Zhou, H.</td>
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<td></td>
<td>53,988</td>
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<td>Granting Agency</td>
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<td>End</td>
<td>Direct</td>
<td>Indirect</td>
<td>Total</td>
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<td>-------</td>
<td>---------</td>
<td>--------</td>
<td>----------</td>
<td>----------</td>
</tr>
<tr>
<td>*** Total: All Faculty</td>
<td></td>
<td>12,181,933</td>
<td>1,775,735</td>
<td>13,957,668</td>
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</tbody>
</table>
Annual Report, 2008

THE DEPARTMENT OF MATHEMATICS
TEXAS A&M UNIVERSITY

College Station, Texas
Contents

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   3.2 Received by Students ....................................................... 357
4. Students .................................................................................... 363
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   4.2 Undergraduate Degrees Awarded ........................................... 367
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7. Research Activity ................................................................. 541
   7.1 By Granting Agency ........................................................... 542
   7.2 By Faculty Member ............................................................ 554
1. Foreword from the Department Head

The 2008 calendar year was full of many fine accomplishments for the Department of Mathematics. Three new assistant professors, Andrea Bonito, Grigoris Paouris, and Igor Zelenko, and one tenured endowed professor Ronald DeVore (Koss Professorship) started their appointments during the Fall of 2008. The faculty as a whole received 6.25 million in federal, state, industrial and private grants during 2008. Nearly three-quarters of our tenured and tenure-track faculty are receiving external funding which more than doubles the national average. Our faculty received many distinguished awards, including the Sloan Fellowships for Wolfgang Bangerth and Laura Matusevich, an AFS College level teaching award for Peter Kuchment. Our department is the only mathematics department in the country with two Sloan awards in 2008. Our department graduated 10 Ph.D. students, 22 masters students and 56 bachelors degree students in 2008. Many of these masters recipients received their degrees through our popular on-line (distance) masters degree program.

Our National Science Foundation funded Research Experiences for Undergraduates and Undergraduate Mathematics Biology grants have funded over 25 undergraduates in research projects mentored by our faculty. Our NSF-funded MCTP grant provided summer opportunities for students to pursue mathematics at a variety of levels Many of our undergraduate and graduate students have given presentations at professional conferences and workshops around the country. Overall, our department taught over 70,000 credit hours which is the largest of any department on campus. Our excellent staff help manage this enormous workload for the benefit of our students and faculty.

I am sincerely proud of the many fine accomplishments of our faculty, staff and students.
2. Departmental Statistics

This section contains information, clarified by each department and gathered from the following sources:

I. Personnel

Tenure-Track Faculty

▷ Queried from the College of Science Faculty Database. (Fall 2007) Baselines, Title, Gender, Ethnicity, Queried from the College of Science Dean Database (Fall 2008) FacultyList_FINAL.

Non-Tenure-Track Faculty

▷ Provided by the Department (Fall 2007), Queried from the College of Science Dean Database (Fall 2008) FacultyList_nonTTF.

Postdoctoral Fellows

▷ Provided by the Department

Graduate Student/Undergraduate Majors

▷ Office of Institutional Studies and Planning (OISP). (Fall 2007, Fall 2008) Enrollment Profile, Headcount by Major by Level, Fall for [Year].

Support Staff

▷ Provided by the Department

II. Instructional Activities

Graduate Semester Credit Hours/Undergraduate Semester Credit Hours

▷ SCH: Undergraduate and Graduate - Office of Institutional Studies and Planning (OISP). (Fall 2008) SCH Summaries by College for [Semester] [Year].

PhD Degrees/Masters Degrees

▷ Queried from COGNOS and the College of Science Dean Database Degrees_Grad.

Undergraduate Degrees

▷ Queried from COGNOS and the College of Science Dean Database Degrees_Undergrad.

III. Research Activities

Research Publications

▷ Queried from Web of Science® and compiled from the College of Science Dean Database Publications_COUNT.

Research Presentations

▷ As reported by faculty and compiled from the College of Science Dean Database Presentations_COUNT.

Federal/State/University/Private/Industrial/International/Other Government

▷ Gathered from research proposals, research award notices, as reported by faculty, compiled from the College of Science Dean Database, Sec. 7.1 of following department annual report.
### 2.1 Statistical Abstract

#### I. Personnel

<table>
<thead>
<tr>
<th>Category</th>
<th>2007</th>
<th>2008</th>
</tr>
</thead>
<tbody>
<tr>
<td>a. Tenured and Tenure-Track Faculty</td>
<td>83</td>
<td>85</td>
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<tr>
<td>Professor</td>
<td>43</td>
<td>45</td>
</tr>
<tr>
<td>Assistant Professor</td>
<td>12</td>
<td>15</td>
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<tr>
<td>Associate Professor</td>
<td>23</td>
<td>20</td>
</tr>
<tr>
<td>Distinguished Professor</td>
<td>5</td>
<td>5</td>
</tr>
<tr>
<td>b. Non-Tenure-Track Faculty</td>
<td>62</td>
<td>67</td>
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<tr>
<td>Visiting Professor</td>
<td>5</td>
<td>3</td>
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<tr>
<td>Visiting Assistant Professor</td>
<td>27</td>
<td>35</td>
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<tr>
<td>Visiting Associate Professor</td>
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<td>2</td>
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<td>Lecturer</td>
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<td>13</td>
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<tr>
<td>Senior Lecturer</td>
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<td>14</td>
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<tr>
<td>c. Postdoctoral Fellows</td>
<td>1</td>
<td>1</td>
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<tr>
<td>d. Graduate Majors</td>
<td>127</td>
<td>138</td>
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<tr>
<td>e. Undergraduate Majors</td>
<td>283</td>
<td>285</td>
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<tr>
<td>f. Support Staff</td>
<td>19</td>
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#### II. Instructional Activities

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<tr>
<th>Category</th>
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<tbody>
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<td>a. Graduate Semester Credit Hours</td>
<td>3,289</td>
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<td>b. Undergraduate Semester Credit Hours</td>
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<td>70,452</td>
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<td>c. PhD Degrees</td>
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<td>10</td>
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<tr>
<td>d. Masters Degrees</td>
<td>25</td>
<td>22</td>
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<td>e. Undergraduate Degrees</td>
<td>57</td>
<td>56</td>
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#### III. Research Activities

<table>
<thead>
<tr>
<th>Category</th>
<th>2007</th>
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<tbody>
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<td>a. Research Publications</td>
<td>212</td>
<td>161</td>
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<tr>
<td>b. Research Presentations</td>
<td>447</td>
<td>324</td>
</tr>
<tr>
<td>c. Federal</td>
<td>4,384,045</td>
<td>4,773,378</td>
</tr>
<tr>
<td>d. State</td>
<td>133,899</td>
<td>431,550</td>
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<tr>
<td>e. University</td>
<td>0</td>
<td>0</td>
</tr>
<tr>
<td>f. Private/Non-Profit</td>
<td>0</td>
<td>64,671</td>
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<tr>
<td>g. Industrial/Corporate</td>
<td>0</td>
<td>50,996</td>
</tr>
<tr>
<td>h. International</td>
<td>831</td>
<td>292,933</td>
</tr>
<tr>
<td>i. Other Govt</td>
<td>91,579</td>
<td>251,360</td>
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<tr>
<td>Total</td>
<td>4,651,301</td>
<td>5,864,889</td>
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</table>
3. Honors & Awards, 2008

By Faculty
▷ This section contains all honors and awards, as reported by individual faculty members, during the calendar year 2008.

By Students
▷ This section contains all honors and awards, as reported by the department, during the calendar year 2008.
### 3.1 Honors & Awards Received by Faculty, 2008

<table>
<thead>
<tr>
<th>Name</th>
<th>Award</th>
</tr>
</thead>
<tbody>
<tr>
<td>W. Bangerth</td>
<td>Sloan Research Fellowships, Alfred P. Sloan Foundation</td>
</tr>
<tr>
<td>S. Geller</td>
<td>Service Award, Mathematics Department</td>
</tr>
<tr>
<td>P. Kuchment</td>
<td>Distinguished Achievement Award - Teaching, The Association of Former Students</td>
</tr>
<tr>
<td>R. Lazarov</td>
<td>Erasmus Mundus Visiting Scholar Award, University of Kaiserslautern</td>
</tr>
<tr>
<td></td>
<td>Medal of the Institute of Mathematics and Informatics, Bulgarian Academy of Sciences</td>
</tr>
<tr>
<td></td>
<td>Pichoridis Distinguished Lectureship, University of Crete, Greece</td>
</tr>
<tr>
<td>L. Matusevich</td>
<td>Sloan Research Fellowships, Alfred P. Sloan Foundation</td>
</tr>
<tr>
<td>P. Yasskin</td>
<td>2008 ICTCM Award, Pearson Education</td>
</tr>
</tbody>
</table>
3.2 Honors & Awards Received by Students, 2008

Graduate

▶ GE Fellowship
  Cara Montgomery
  Stephanie Tougas
  Jennifer Webster

▶ Graduate Assistance in Areas of National Need (GAANN) Fellowship
  Jan Cameron
  Luke Oeding
  Paul Schumacher
  Stephanie Tougas

▶ Graduate Merit Fellowship
  Alexis Olson

▶ Houston A&M Mother’s Club Outstanding TA Awards
  Heather Albrecht
  Ron Ollis
  Svettana Poznanovikj

▶ Integrative Graduate Education and Research Traineeship (IGERT)
  Donald Brown
  Lauren Ferguson
  Maya Johnson
  Tracy Weyand

▶ Kaust Fellowship
  Moritz Allmaras
  Abner Salgado Gonzalez
  Linh Nguyen

▶ Koss Endowed Fellowship in Mathematics
  Hao Thanh Nguyen
  Jorge Samayaoa-Ranero
  Anatolli Sianov

▶ L.F. Guseman Prize in Mathematics
  Michael Fulkerson
  Tsvetanka Sendova
  Gabriel Tucci

▶ Lechner Fellowship
  Anatolli Sianov
  Jun Wen
  Joerg Willerns
  Yue Zhang
  Yicun Zhen
  Lihua Zuo
Regents’ Fellowship
Mustafa Ayyuru
Chris Barot
Patrick Beben
Jeff Bouas
Sofia Ortega Castillo
Wakit Chan
Ming-Chieh Chen
Niyazi Gezer
Aditi Ghosh
Kate Iushchenko
Sanghyun Lee
Ruifang Li
Jiayin Liu
Bret Lockhart
Saitula Naranong
Alexis Olson
Jason Pfister
Timothy Ranone
Zekiye Shain
Habib Taltvatifard

W.E. Coppage Fellowship
Jeanett Shakalli Tang

Undergraduate

Academic Achievement Scholarship
Angela Gilbert
Alicia Israel
Emma Naden

Actuarial Achievement Scholarship
Shannon Cavanaugh
Ryan Mattiza
Michelle Moyer
Anthony Neumann
Rebeca Ordaz
Tammy Schmidt
Lindsey Scott
Brett Simpson

Best in Class Award for Math 409
Bernardo Cunha
James Garza
Casey Rodriguez
Isaac Velando

Best in Class Award for Math 409H
Luiz Faria
Best in Class Award for Math 411
Lisa Cangelose
Angela Gilbert

Best in Class Award for Math 415/416
Ryan Rodriguez

Best in Class Award for Math 425
Matt Cefalu

Best in Class Award for Math 446/447H
John Fulk

Best in Class Award for Math 467
David Coward
Matthew Jungman

Elizabeth A. Lepley Scholarship
Tanner Wilson

Freshman Calclab Scholarship
Kevin Hector
Sonja Lam
Tanner Wilson
Cory Wolfe

Koss/McGee/Hillman Scholarship
Jacqueline Cordova
Luiz Faria
Mark Houston
Kate Inman
Nicole James
Elizabeth Jennings
Shea Ling Lee
Patricia Oliver
Caitlyn Travis

Mary & Robert N. Walker Endowed Scholarship
Rachel Dwight
Tami Parten
John Yeary
Charles Zheng

New Phi Beta Kappa Member
Lisa Cangelose
Paul Geffert
Andrew Harrell
Shelley Herbrich
Susan Koons
Cara Montgomery
Hannah Saugier
Brandon Williamson
Tracy Yee

▷ New Pi Mu Epsilon Member
Julio Araiza, Jr.
Shannon Cavanaugh
Amanda Dailey
Sarah Emich
Luiz Faria
Beth Gardiner
James Garza
Paul Geffert
Joshua Gutz
Jeshurun Hembd
Shelley Herbrich
Alicia Israel
Greg Johnson
Eric Kylberg
Hung-Pei Lin
Amber Maciejeski
Ryan Mattiza
Timothy McGhee
Stephanie McLemore
Fernando Mera
Anastasia Meyer
Emma Naden
Tami Parten
Siyying Peng
Kyle Rechard
Ryan Reininger
Casey Rodriguez
Lindsey Scott
Jessica Struck
Kenneth Taliaferro
Isaac Velando
Kathleen Weber
Anne Wiley
Jennifer Williamson
Brandon Williamson
Jennifer Wolff
Will Yarbbery

▷ Walter E. Koss/E.C. Klipple Endowed Scholarship in Mathematics
Allison Hendley
Annchen Knodt
Nell Kroeger

▷ Watson Wyatt Actuarial Scholarship
Lisa Cangelose

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Xue Chen
Amanda Dailey
Kim Dulock
Catherine Flynt
Ashley Holcomb
Lea Leverington
Rachel Loudermilk
Abigail Marchhart
Ryan Mattiza
Stephen McFarling
Timothy McGhee
Stephanie McLemore
James Middleton
Michelle Moyer
Kelly Mueller
Anthony Neumann
Rebecca Ordaz
Laura Peter
Brett Simpson
Katherine Spahn
Jeff Towles
Kirsten Wokey
Jeffrey Wong
4. Students, 2008

This section contains all degrees awarded, as reported by the department, during the calendar year 2008.
4.1 Graduate Degrees Awarded, 2008

Fall

▷ M.S.

Nihat Bayhan

Advisor(s): G. Allen

Cynthia Lucille Bervig

Advisor(s): S. Geller

Daniel Ray Phillips

Advisor(s): G. Allen

Heidi S. Sass

Advisor(s): G. Allen

▷ Ph.D.

Tsvetanka Bozhidarova Sendova

A New Approach to the Modeling and Analysis of Fracture through an Extension of Continuum Mechanics to the Nanoscale

Advisor(s): J. Walton

Haibo Yang

Ro(g)-graded Equivariant Bredon Cohomology Theory and Sheaves

Advisor(s): P. Lima-Filho

Spring

▷ M.S.

Alexander Collins

Advisor(s): G. Allen

Scott Edward Evans

Advisor(s): P. Stiller

Chris Aaron Fuqua

Advisor(s): T. Vogel

John H. Klapp

Advisor(s): J. Pitts

Melonie Diane Lemond

Advisor(s): S. Geller

Victoria Malloy

Advisor(s): S. Geller

John David McFall

Advisor(s): B. Lowe

Ryan Newman

Advisor(s): S. Geller

Teresa Osadnik
Joshua Daniel Rhodes  
Advisor(s): G. Allen  

Samuel Christopher Terfa  
Advisor(s): J. Walton  

Sarah K. Woods  
Advisor(s): G. Allen  

▷ Ph.D.  
Mehmet Celik  
Contributions to the Compactness Theory of the D-bar Neumann Operator  
Advisor(s): E. Straube  

Rivera Walter Moreira Rodriguez  
Products of Representations of the Symmetric Group and Non-commutative Versions  
Advisor(s): M. Aguiar  

Summer  

▷ M.S.  
Leslie Lebus Blackerby  
Advisor(s): S. Geller  

Maya Elise Johnson  
Advisor(s): J. Walton  

Jayne Ann Overgard  
Advisor(s): G. Allen  

Sandra Christine Snyder  
Advisor(s): S. Geller  

Matthew Aaron Stricker  
Advisor(s): S. Geller  

Donna Lynn Thorne  
Advisor(s): G. Allen  

▷ Ph.D.  
Xianjin Chen  
Analysis and Computation of Multiple Unstable Solutions to Nonlinear Elliptic Systems  
Advisor(s): J. Zhou  

Michael C. Fulkerson  
Radial Limits of Holomorphic Functions on the Ball  
Advisor(s): H. Boas  

Lijian Jiang  
Multiscale Numerical Methods for Partial Differential Equations using Limited Global Information and Their Applications  
Advisor(s): Y. Efendiev  

SEC. 4.1  
GRADUATE DEGREES  
365
<table>
<thead>
<tr>
<th>Name</th>
<th>Thesis Title</th>
<th>Advisor(s)</th>
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<tbody>
<tr>
<td>James Lee Kimball</td>
<td>Bounds on Codes from Smooth Toric Threefolds with ( \text{Rank}(\text{pic}(x)) = 2 )</td>
<td>H. Schenck</td>
</tr>
<tr>
<td>Dukjin Nam</td>
<td>Multiscale Numerical Methods for Some Types of Parabolic Equations</td>
<td>Y. Efendiev</td>
</tr>
<tr>
<td>Nga Quynh Nguyen</td>
<td>Surgery on Frames</td>
<td>D. Larson</td>
</tr>
</tbody>
</table>
### 4.2 Undergraduate Degrees Awarded, 2008

#### Fall

- **B.A.**
  - Deborah Michelle Franklin
  - Trina Evette Gregory
  - Megan Danette Hinson
  - Cayce Carter Horner
  - Korey Layne Kennedy
  - Andrea Kristen Long
  - Ryann Nicole Shelton
  - Karen Elizabeth Youngblood

- **B.S.**
  - Karen Diane Cockrum
  - Kristin K. Creech
  - Daniel Arthur Godber
  - Allison Melissa Hendley
  - Mark Gregory Houston
  - Lea Grace Leverington
  - Daniel Thomas Lydon
  - James Benjamin Middleton
  - Laura Elizabeth Peter
  - Sahak David Sandragorsian

#### Spring

- **B.A.**
  - Sara Katarina Cox
  - Julie Marie Davis
  - Alice Lynn Dubinski
  - Pamela Diane Garner
  - Raymond Perez Garza
  - Suzy Ann Hicks
  - Kacie Lynn Jeppesen
  - Bret James Lockhart
  - Adam Loveless
  - Alicia Jeanelle Parenica
  - Austin Michelle Prochaska
  - Ryan Quinn Scott
  - Jessica Katherine Sherman
  - Melissa Marie Walton

- **B.S.**
  - Raechel Marie Doyle
  - Meghan Elizabeth Dragisic
  - John Eric Fulk
  - Jillian Nicole Harvey
  - Paul Michael Harvey
  - John Christopher Hernandez
Ashley Nicole Holcomb
Rachel Letitia Loudermilk
Josiah Manson
Andrew Lewis Matteson
Anastasia Rose Meyer
Cara Janel Montgomery
Lindsey Kaye Novak
Jason Andrew Pfister
Hannah Lee Saugier
Sean Andrew Sedlock
Ty Thomas Thurmond
Jeffrey Daniel Wong
Tracy Claire Yee

<table>
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<tbody>
<tr>
<td>▶ B.A.</td>
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<tr>
<td>Catherine Ingrid Flynt</td>
</tr>
<tr>
<td>▶ B.S.</td>
</tr>
<tr>
<td>Matthew Steven Cefalu</td>
</tr>
<tr>
<td>Ross L. Mckinney</td>
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<tr>
<td>Ryan Michael Romero</td>
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<td>Jeffrey Robert Towles</td>
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5. Colloquium and Seminar Speakers, 2008

### Algebra and Combinatorics

<table>
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<tr>
<th>Date</th>
<th>Speaker</th>
<th>Institution</th>
<th>Title</th>
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<tr>
<td>1/18/2008</td>
<td>Marcelo Aguiar</td>
<td>Texas A&amp;M University</td>
<td>Bimonoids in Species</td>
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<td>1/25/2008</td>
<td>Christopher Hillar</td>
<td>Texas A&amp;M University</td>
<td>A Finiteness Question of Sturmfels</td>
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<tr>
<td>2/1/2008</td>
<td>Eric Rowell</td>
<td>Texas A&amp;M University</td>
<td>Unitarizability of Pre-modular Categories</td>
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<tr>
<td>2/8/2008</td>
<td>Geir Helleloid</td>
<td>University of Texas</td>
<td>Automorphism Groups of Finite p-Groups</td>
</tr>
<tr>
<td>2/22/2008</td>
<td>Deepak Naidu</td>
<td>University of New Hampshire</td>
<td>Lagrangian Subcategories of Twisted Quantum Doubles of Finite Groups</td>
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<td>2/25/2008</td>
<td>Charles Conley</td>
<td>University of North Texas</td>
<td>Contact Vector Fields on the Superline</td>
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<tr>
<td>2/29/2008</td>
<td>Muriel Livernet</td>
<td>Massachusetts Institute of Technology</td>
<td>Posets, Groups and Hopf Algebras Associated to a Set-Operad</td>
</tr>
<tr>
<td>3/7/2008</td>
<td>Rob Ellis</td>
<td>Illinois Institute of Technology</td>
<td>Recent Results in Liar Games</td>
</tr>
<tr>
<td>3/21/2008</td>
<td>Rosena Du</td>
<td>East China Normal University</td>
<td>Counting Labelled Trees with Given Indegree Sequence</td>
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<tr>
<td>3/28/2008</td>
<td>Gregory Berkolaiko</td>
<td>Texas A&amp;M University</td>
<td>The Number of Inequivalent Minimal Factorizations of an n-cycle</td>
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<td>4/4/2008</td>
<td>Xingxing Yu</td>
<td>Georgia Institute of Technology</td>
<td>On Judicious Partitions of Graphs</td>
</tr>
<tr>
<td>4/9/2008</td>
<td>Mitja Mastnak</td>
<td>University of Waterloo</td>
<td>On (Combinatorial) Hopf Algebras Extensions</td>
</tr>
<tr>
<td>Date</td>
<td>Speaker</td>
<td>Institution</td>
<td>Title</td>
</tr>
<tr>
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<td>-----------------------</td>
<td>-------------------------------------</td>
<td>----------------------------------------------------------------------</td>
</tr>
<tr>
<td>4/11/2008</td>
<td>Vladimir Retakh</td>
<td>Rutgers University</td>
<td>Algebras Associated to Directed Acyclic Graphs</td>
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Large Deviation Asymptotics of the Heat Kernels on Periodic Manifolds

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5/14/2008 Francisco-Javier Sayas
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11/5/2008 Marco Verani
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Texas A&M University
Overcrowding and Hole Probabilities for Random Zeros on Complex Manifolds, Part 1

SEC. 5. COLLOQUIUM AND SEMINAR SPEAKERS 395
Scott Zrebiec
Texas A&M University
Overcrowding and Hole Probabilities for Random Zeros on Complex Manifolds, Part 2
Working Algebra Seminar

9/3/2008  Eric Rowell
          Texas A&M University
          Fusion Categories

9/10/2008  Deepak Naidu
           Texas A&M University
           More on Fusion Categories

9/24/2008  Sarah Witherspoon
           Texas A&M University
           Algebras in Tensor Categories I

10/1/2008  Sarah Witherspoon
           Texas A&M University
           Algebras in Tensor Categories II

10/15/2008  Eric Rowell
             Texas A&M University
             Braid Representations

10/22/2008  Deepak Naidu
             Texas A&M University
             Dimension Theory for Fusion Categories

11/5/2008  Sarah Witherspoon
           Texas A&M University
           Hopf Algebras in Braided Monoidal Categories
<table>
<thead>
<tr>
<th>Date</th>
<th>Speaker</th>
<th>University</th>
<th>Title</th>
</tr>
</thead>
<tbody>
<tr>
<td>1/22/2008</td>
<td>Harold Boas</td>
<td>Texas A&amp;M University</td>
<td>Negative Curvature and the Hormander-Bombieri-Skoda Technique, I</td>
</tr>
<tr>
<td>1/29/2008</td>
<td>Harold Boas</td>
<td>Texas A&amp;M University</td>
<td>Negative Curvature and the Hormander-Bombieri-Skoda Technique, II</td>
</tr>
<tr>
<td>2/5/2008</td>
<td>Joseph M. Landsberg</td>
<td>Texas A&amp;M University</td>
<td>Jet Bundles and Differential Equations, I</td>
</tr>
<tr>
<td>2/19/2008</td>
<td>Joseph M. Landsberg</td>
<td>Texas A&amp;M University</td>
<td>Jet Bundles and Differential Equations, II</td>
</tr>
<tr>
<td>2/26/2008</td>
<td>Joseph M. Landsberg</td>
<td>Texas A&amp;M University</td>
<td>Jet Bundles and Differential Equations, III</td>
</tr>
<tr>
<td>4/15/2008</td>
<td>Colleen Robles</td>
<td>Texas A&amp;M University</td>
<td>The Bott-Borel-Weil Theorem, II</td>
</tr>
<tr>
<td>8/26/2008</td>
<td>Joseph M. Landsberg</td>
<td>Texas A&amp;M University</td>
<td>Introduction and Overview</td>
</tr>
<tr>
<td>9/2/2008</td>
<td>Colleen Robles</td>
<td>Texas A&amp;M University</td>
<td>Sheaves, Sheaf Cohomology, Higher Direct Images</td>
</tr>
<tr>
<td>9/9/2008</td>
<td>Joseph M. Landsberg</td>
<td>Texas A&amp;M University</td>
<td>G/P: Examples and Structure of the Tangent Space</td>
</tr>
<tr>
<td>9/15/2008</td>
<td>Ada Boralevi</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>
Texas A&M University
Homogeneous Vector Bundles on G/P, p-Modules, Examples

9/22/2008 Colleen Robles
Texas A&M University
Affine Weyl Group Action & Hasse Diagrams

10/7/2008 Luke Oeding
Texas A&M University
Cohomology of Irreducible Homogeneous Vector Bundles, the Bott-Borel-Weil Theorem, Examples

10/14/2008 Ada Boralevi
Texas A&M University
Quivers and the Cohomology of Homogeneous, (not nec. Irreducible) Vector Bundles

10/28/2008 Andreas Cap
University of Vienna
Invariant Differential Operators and Homomorphisms of Induced Modules

11/4/2008 Andreas Cap
University of Vienna
Introduction to BGG Sequences

11/11/2008 Ada Boralevi
Texas A&M University
Quivers and the Cohomology of Homogeneous, (not nec. Irreducible) Vector Bundles, 3

12/2/2008 Joseph M. Landsberg
Texas A&M University
(Generalized) Verma Modules
6. Faculty, 2008

Marcelo Aguiar .................................................. Professor
Angela Allen .................................................. Lecturer
G. Donald Allen ........................................... Professor
Michael Anshelevich ................................ Assistant Professor
Ben Aurispa .................................................. Lecturer
Amy L. Austin ............................................... Senior Lecturer
Wolfgang Bangerth ................................ Assistant Professor
Guy A. Battle ................................................ Professor
Ioan Bejenaru ................................................. Assistant Professor
Arthur P. Belmonte .................................... Senior Lecturer
Gregory Berkolaiko ................................ Assistant Professor
G. Robert Blakley .......................................... Professor
Harold P. Boas ............................................... Professor
Albert Boggess ............................................... Professor
Kathryn L. Bollinger ....................................... Senior Lecturer
Andrea Bonito .............................................. Assistant Professor
Ishak Borosh .................................................. Professor
Chia-Rong Chen ............................................ Lecturer
Goong Chen .................................................. Professor
Amy Collins .................................................. Lecturer
Andrew Comech ........................................... Associate Professor
Prabir Daripa ............................................... Associate Professor
Richard D. DeBlassie .................................. Associate Professor
Ronald A. DeVore .......................................... Professor
Ronald G. Douglas ........................................ Distinguished Professor
Marcia L. Drost .............................................. Senior Lecturer
Kenneth J. Dykema ......................................... Professor
Yalchin R. Efendiev ......................................... Professor
Janice L. Epstein ............................................ Senior Lecturer
Tamas Erdelyi .................................................. Professor
Ciprian I. Foias .............................................. Distinguished Professor
Stephen A. Fulling ......................................... Professor
Susan C. Geller ............................................... Professor
Rostislav I. Grigorchuk ................................ Distinguished Professor
Jean-Luc Guermond .......................................... Professor
Robert A. Gustafson ..................................... Associate Professor
Douglas A. Hensley ........................................ Professor
Yvette C. Hester ........................................... Senior Lecturer
Arthur M. Hobbs ........................................... Professor
Peter B. Howard ........................................... Associate Professor
William B. Johnson ........................................ Distinguished Professor
Joseph E. Kahlig ............................................... Senior Lecturer
Guido Kanschat ........................................... Assistant Professor
David Kerr .................................................. Assistant Professor
Thomas R. Kiffe ........................................... Associate Professor
Kendra Kilmer ................................................ Lecturer
Gregory S. Klein ........................................... Senior Lecturer
*For the Annual Report, Faculty are defined as tenure and non-tenure track employees who were employed at any time during 2008 (01/01/2008-12/31/2008).
6.1 Professional Activities, 2008

This section contains information, as reported by individual faculty members, encompassing each faculty member’s professional activities for the calendar year 2008.

Subsections of professional activities are defined as follows:

Honors and Awards
▷ All professional honors and awards, both internal and external.

Service Activities
▷ All professional service and leadership roles, including: departmental, college, university, state, national and international.

Teaching
▷ Classes taught during the Spring, Summer and Fall sessions of 2008.
▷ Any missing enrollment numbers were gathered from the Student Information Management System (SIMS) at Texas A&M University.

Research Projects
▷ All research projects, funded and unfunded.
▷ Whenever possible, all research-related employees of that faculty member are listed along with the citation. Key for employees: (P)=Postdoc, (G)=Graduate Student, (U)=Undergraduate Student.
▷ Renewals are marked by “(REN)” at the beginning of their title.
▷ Unfunded grants are marked by “(UNFUNDED)” at the end of the citation.
▷ Additional information (including PIs, CoPIs, and funding) on all funded grants are listed in Section 6.

Presentations
▷ All posters, invited and contributed lectures (plenary, conferences, colloquia, seminars, etc.).
▷ Whenever reported, posters, invited and contributed lectures are noted in parentheses following the citation.
▷ Citations are in chronological order.

Publications
▷ All printed materials published during 2008.
▷ Pre-press, in-press and submitted publications were not included.
▷ Citations were formatted in APA Style and are in alphabetical order by lead author.
• SERVICE DURING 2008

National

Department
  ▶ Committee/Panel: Tenure Committee (Member)

• TEACHING ASSIGNMENTS DURING 2008

Spring
  ▶ MATH 172(H) — Calculus (total enrollment: 10)
  ▶ MATH 172. — Calculus (total enrollment: 24)
  ▶ MATH 691. — Research (total enrollment: 2)

Fall
  ▶ MATH 662. — Seminar in Algebra (total enrollment: 9)

• RESEARCH PROJECTS DURING 2008

Federal
  ▶ Algebra and Combinatorics of Free Structures, National Science Foundation

• PRESENTATIONS DURING 2008

  ▶ Algebra and Combinatorics Seminar, Texas A&M University, College Station, TX, January, 2008.( Individual)
  ▶ CombinaTexas, University of Texas, El Paso, TX, April, 2008.( Individual)
  ▶ Combinatorics Seminar, George Washington University, Washington, DC, April, 2008.( Individual)
  ▶ “Algébre Combinatoire et Arbres,” Université Lyon I, Lyon, France, May, 2008.( Individual)
  ▶ Séminaire d’Algèbre et Topologie, Laboratoire J. A. Dieudonné, Université de Nice Sophia, Antipolis, France, May, 2008.( Individual)
  ▶ “BilleraFest,” Cornell University, Ithaca, NY, June, 2008.( Individual)
  ▶ Discrete Geometry and Combinatorics Seminar, Cornell University, Ithaca, NY, September, 2008.( Individual)
  ▶ Algebra, Number Theory, and Combinatorics Seminar, the University of Texas, Austin, TX, October, 2008.( Individual)
• ADDITIONAL UNIVERSITY TITLES HELD DURING 2008
  ▶ Director, Center for Technology-Mediated Learning in Mathematics, Board of Regents, [2008]
  ▶ Associate Department Head, Mathematics, [2006]

• SERVICE DURING 2008

  National
  ▶ Professional Affiliation: Mathematical Association of America, Society for Industrial and Applied Mathematics, Southwest Educational Research Association, Merlot-Multimedia Educational Resource for Learning and Online Teaching (Member)
  ▶ Event: Cengage Regional Meeting (Presenter), Conference for the Advancement of Mathematics Teaching (Presenter)

  State
  ▶ Event: The Grass-Roots P-16 Consortium (Organizer)

  Regional
  ▶ Event: GK-12 Special Workshop for Math Fellows (Participant), Research on Teaching and Learning Fractions, to the GK-12 Teachers (Presenter)

  University
  ▶ Service Position: Regents Scholar Mentor Program (Mentor)
  ▶ Event: Comparability Study Between TExES Tests and Praxis Tests (Participant)
  ▶ Committee/Panel: GK-12 Educational Outreach Institutionalization Committee (Chair), Southwest Educational Reseach Association (Co-Chair), STEPS Management Team (College of Engineering) (Member)

  College
  ▶ Committee/Panel: College Quality Enhancement Plan Council (Member), Institutional Effectiveness Working Group (Member)

  Department
  ▶ Service Position: MS Online Program in Mathematics, AP Calculus Institute (Presenter)
  ▶ Committee/Panel: Camtasia Steering Committee (Member), Engineering Sequence Mathematics Committee (Chair), Executive Committee (Member), Honors Committee (Member), Sigma XI Educational Outreach Committee (Member), Texas Math Talent Search
(Chair), Undergraduate Studies Committee (Member)

• TEACHING ASSIGNMENTS DURING 2008

Spring
- MATH 646. — A Survey of Mathematical Problems II (total enrollment: 14)
- MATH 689. — Special Topics in (total enrollment: 4)

Summer
- MATH 664. — Seminar in Applied Mathematics (total enrollment: 8)
- MATH 685. — Directed Studies (total enrollment: 2)

Fall
- MATH 645. — A Survey of Mathematical Problems I (total enrollment: 9)

• RESEARCH PROJECTS DURING 2008

Federal
- (REN) TRACK1, GK-12: Fellows Integrate Science/Math In Rural Middle Schools, National Science Foundation

State
- 21st Century Community Learning Centers Program, Texas Education Agency
- Algebra II Focus in Mathematics Alignment, Texas Higher Education Coordinating Board
- Course Redesign for Math 1324, Texas Higher Education Coordinating Board
- High Quality Algebra II Instruction, Texas Higher Education Coordinating Board
- High Quality Instruction for Algebra I, Texas Higher Education Coordinating Board

• PRESENTATIONS DURING 2008

- “e-learning in the 21st Century,” South Texas Mathematics Consortium, 16th Annual Meeting of Faculty and Students, Texas A&M, Kingsville, TX, February, 2008.( Individual)
- “Misconceptions in Mathematics Understanding,” AMS Regional Meeting, 2008 Spring Southeastern Meeting Louisiana State University, Baton Rouge, LA, March, 2008.( Invited)
- “What Colleges Want and What Colleges Get,” Cengage Assessment Workshop, Microtek Training Facility, Dallas, TX, March, 2008.( Individual)
- “Misconceptions in Mathematical Understanding,” Conference for the Advancement of Mathematics Teaching, Dallas, TX, July, 2008.( Individual)

“Administrative Leadership for TEKS and TAKS Mathematics,” Education Service Center, VI, September, 2008. (Invited)
• SERVICE DURING 2008

International
▶ Editorial/Board: *Mathematische Zeitschrift* (Referee: Journals)

National
▶ Event: Free Probability Seminar (Co-Organizer)

• TEACHING ASSIGNMENTS DURING 2008

Spring
▶ MATH 311. — *Topics in Applied Mathematics I* (total enrollment: 40)

Fall
▶ MATH 151. — *Engineering Mathematics I* (total enrollment: 93)
▶ MATH 311. — *Topics in Applied Mathematics I* (total enrollment: 43)

• RESEARCH PROJECTS DURING 2008

Federal
▶ Combinatorial Methods in Free Probability, *National Science Foundation*

• PRESENTATIONS DURING 2008
▶ Ben Gurion University of the Negev, Isreal, 2008.( Individual)
▶ “AMS Special Session on C*-Algebras, Subfactors and Free Probability,” Claremont McKenna College, Claremont, CA, May, 2008.( Invited)
▶ “Foundations of Computational Mathematics, Workshop on Special Functions and Orthogonal Polynomials,” City University of Hong Kong, Hong Kong, China, June, 2008.( Invited)
▶ “Workshop on Non-Commutative Harmonic Analysis with Applications to Probability,” Banach Center, Bedlewo, Poland, August, 2008.( Invited)

• PUBLICATIONS DURING 2008
• ADDITIONAL UNIVERSITY TITLES HELD DURING 2008
  ▷ Member, Interdisciplinary Faculty, Computational Nanoscience and Materials - IGERT, [2006]

• AWARDS DURING 2008
  National
  ▷ Sloan Research Fellowships, Alfred P. Sloan Foundation

• SERVICE DURING 2008
  National
  ▷ Committee/Panel: Science Steering Committee, Center for Computational Infrastructure in Geodynamics (Elected Member)

University
  ▷ Committee/Panel: Faculty Senate (Faculty Senator - 12), Supercomputing Advisory Council (Member)

Department
  ▷ Event: Mathematical and Computational Issues in the Solid Earth Geosciences Workshop (Organizer)
  ▷ Committee/Panel: Program Committee (Member)

• TEACHING ASSIGNMENTS DURING 2008
  Spring
  ▷ MATH 685. — Directed Studies (total enrollment: 1)

  Summer
  ▷ MATH 685. — Directed Studies (total enrollment: 1)
  ▷ MATH 691. — Research (total enrollment: 1)

  Fall
  ▷ MATH 691. — Research (total enrollment: 1)

• RESEARCH PROJECTS DURING 2008

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Federal
▷ 3-D Deep Penetration Neutron Imaging of Thick Absorbing and Diffusive Heterogeneous Objects Using Transport Theory, Department of Energy
▷ Diagnostic Cancer Imaging Using NIR Fluorescent Agents and EDPM, National Institutes of Health
▷ A Framework for Developing Novel Detection Systems Focused on Interdicting Shielded, National Science Foundation
▷ Mathematical Methods for Novel Modalities of Medical Imaging, National Science Foundation

State
▷ Mathematical Techniques in Novel Modalities of Medical Imaging, Texas Higher Education Coordinating Board

Private
▷ Inverse Problems and Computational Science, Alfred P. Sloan Foundation
▷ A Suite of Simple Geodynamics Applications using Adaptive Finite Element Methods, California Institute of Technology

• PRESENTATIONS DURING 2008
▷ “Mathematical and Computational Issues in the Solid Earth Geosciences,” Santa Fe, NM, 2008. (Invited)
▷ Department of Mathematics and Statistics, McGill University, Montreal, Canada, 2008. (Individual)
▷ Department of Mathematics, Indian Institute of Technology Kanpur, India, 2008. (Individual)

• PUBLICATIONS DURING 2008
• SERVICE DURING 2008
  
  National
  ▶ Editorial/Board: *Applied and Computational Harmonic Analysis* (Member)
  
  University
  ▶ Committee/Panel: Budget Information Committee (Member), Core Curriculum Council (Member), Faculty Senate (Faculty Senator - 01), Teaching Committee (Member)
  
  Department
  ▶ Service Position: Math 151 Course (Coordinator)
  
• TEACHING ASSIGNMENTS DURING 2008
  
  Spring
  ▶ MATH 151. — *Engineering Mathematics I* (total enrollment: 57)
  ▶ MATH 602. — *Methods and Applications of Partial Differential Equations* (total enrollment: 27)

  Summer
  ▶ MATH 433. — *Applied Algebra* (total enrollment: 17)

  Fall
  ▶ MATH 407. — *Complex Variables* (total enrollment: 20)
• SERVICE DURING 2008
  
  National

• TEACHING ASSIGNMENTS DURING 2008

  Spring
  ▶ MATH 308. — Differential Equations (total enrollment: 79)

• RESEARCH PROJECTS DURING 2008

  Federal
  ▶ Schrödinger Maps and Related Problems, National Science Foundation

• PUBLICATIONS DURING 2008


Resigned 10/10/2008.
GREGORY BERKOLAIKO
ASSISTANT PROFESSOR (979) 845-1924
MATH-Partial Differential Equations berko@math.tamu.edu

• SERVICE DURING 2008

National
▷ Editorial/Board: *J Phys A: Mathematical and General, New Journal of Physics, Nonlinearity* (Referee: Journals)

Department
▷ Service Position: Math Awareness Month Website (Developer)
▷ Event: Quantum Chaos: Routes to RMT and Beyond (Organizer)
▷ Committee/Panel: Math Awareness Month (Member)

• TEACHING ASSIGNMENTS DURING 2008

Spring
▷ MATH 251. — Engineering Mathematics III (total enrollment: 79)
▷ MATH 491.(H) — Research (total enrollment: 1)

Fall
▷ MATH 251. — Engineering Mathematics III (total enrollment: 93)
▷ MATH 409. — Advanced Calculus I (total enrollment: 22)

• RESEARCH PROJECTS DURING 2008

Federal
▷ Spectral Properties of Quantum Graphs, *National Science Foundation*

• PRESENTATIONS DURING 2008

▷ “Form-Factor Expansion: Some Forgotten Orbits,” Quantum Chaos: Routes to RMT and Beyond, Banff, Canada, February, 2008.( Individual)
▷ “A Lower Bound for Nodal Count on Discrete and Metric Graphs,” Mathematical Aspects of Quantum Chaos, Montreal, Canada, June, 2008.( Individual)
▷ “A Lower Bound for the Number of Nodal Domains,” Spectral Graph Theory, Rio de Janeiro, Brazil, December, 2008.( Individual)
▷ Weizmann Institute of Science, Israel, December, 2008.( Individual)

• PUBLICATIONS DURING 2008

• SERVICE DURING 2008

International

▷ Editorial/Board: Springer-Verlag’s International Journal of Information Security (Co-Founder)
▷ Committee/Panel: Management Board, Information Security Research Centre, Faculty of Information Technology, Queensland University (Member)

No report received from faculty member.
• SERVICE DURING 2008

National

▷ Editorial/Board: MAA Anneli Lax New Mathematical Library (Editor), Mathematical Reviews, Zentralblatt MATH (Reviewer), MathSciNet (Reviewer), MMA Committee on Sessions of Contributed Papers (Member), MMA Coordinating Council on Publications (Member), Indiana University Mathematics Journal, Journal of Mathematical Analysis and Applications, Mathematische Annalen, Tamkang Journal of Mathematics (Referee: Journals)

▷ Committee/Panel: AAAS Electorate Nominating Committee (Member)

College

▷ Committee/Panel: Diversity Committee (Member)

Department

▷ Committee/Panel: Committee L (Member)

• TEACHING ASSIGNMENTS DURING 2008

Spring

▷ MATH 407. — Complex Variables (total enrollment: 33)
▷ MATH 691. — Research (total enrollment: 1)

Summer

▷ MATH 304. — Linear Algebra (total enrollment: 27)
▷ MATH 685. — Directed Studies (total enrollment: 1)
▷ MATH 691. — Research (total enrollment: 2)

Fall

▷ MATH 323 — Linear Algebra I (total enrollment: 1)
▷ MATH 446(H) — Principles of Analysis I (total enrollment: 6)
▷ MATH 446. — Principles of Analysis I (total enrollment: 19)
▷ MATH 691. — Research (total enrollment: 1)
• ADDITIONAL UNIVERSITY TITLES HELD DURING 2008
  ▶ Department Head, Mathematics, [2002]

• SERVICE DURING 2008
  International
  ▶ Editorial/Board: Mathematische Annalen, Israel Journal of Mathematics (Referee: Journals)
  National
  Regional
  ▶ Committee/Panel: High School Mathematics Competition Committee (Member)
  University
  ▶ Committee/Panel: University Department Heads Council (Member)
  College
  ▶ Committee/Panel: Executive Committee (Member)
  Department
  ▶ Service Position: Recruitment of Mathematics Faculty for Texas A&M University- Qatar (Manager)

• TEACHING ASSIGNMENTS DURING 2008
  Fall
  ▶ MATH 640. — Linear Algebra for Applications (total enrollment: 18)

• RESEARCH PROJECTS DURING 2008
  Federal
  ▶ Graduate Assistance in Areas of National Need, Department of Education
  ▶ MCTP: Transition Points for High School and Undergraduate Mathematics Students, National Science Foundation
  ▶ REU Site: Undergraduate Research in Mathematical Sciences and it’s Applications, National Science Foundation
  ▶ Workshop to Advise NSF on Proposed Program for Undergraduate Recruitment into Mathematics and Science, National Science Foundation

• PRESENTATIONS DURING 2008
• PUBLICATIONS DURING 2008
    *Journal of Geometric Analysis*, vol. 18, 980-1001.
• SERVICE DURING 2008

International
▷ Editorial/Board: SIAM: SINUM (Referee: Journals)

National
▷ Editorial/Board: Interfaces Free Bound (Referee: Journals)

Department
▷ Event: A Safeguarded Dual Weighted Residual Method Seminar (Host)

• PRESENTATIONS DURING 2008

▷ “Finite Element Method for Geometrical Flows,” Texas A&M University, College Station, TX, February, 2008. (Invited)
▷ “Electrowetting on Dielectric, Annual Symposium of the Burgers Program for Fluid Dynamics,” University of Maryland, College Park, MD, May, 2008. (Individual)

• PUBLICATIONS DURING 2008


Hired 08/16/2008.
• SERVICE DURING 2008

International
▷ Editorial/Board: Austrian Academy of Science (Review: Proposals)

National

Department
▷ Committee/Panel: Library Committee (Member), Talent Search (Member)

• TEACHING ASSIGNMENTS DURING 2008

Spring
▷ MATH 302. — *Discrete Mathematics* (total enrollment: 67)

Summer
▷ MATH 302. — *Discrete Mathematics* (total enrollment: 11)

Fall
▷ MATH 304. — *Linear Algebra* (total enrollment: 53)
GOONG CHEN

• SERVICE DURING 2008

International
▷ Event: The Second Doha Conference on Applied Mathematics and Computational Science (Session Chair), The Second Doha Conference on Applied Mathematics and Computational Science (Co-Organizer)
▷ Editorial/Board: International Journal of Quantum Information (Member)

National
▷ Event: Mathematical Horizons in Quantum Physics (MHQP), Session (I): Quantum Control and Dynamics, Institute of Mathematical Science (IMS), National University of Singapore (Discussion Leader), Mathematical Horizons in Quantum Physics (MHQP), Session (I): Quantum Control and Dynamics, Institute of Mathematical Science (IMS), National University of Singapore (Organizer)
▷ Editorial/Board: Chapman & Hall/CRC Press Applied Mathematics and Nonlinear Sciences Series (Editor-in-Chief), Electronic Journal of Differential Equations (Editor-in-Chief), Journal of Mathematical Analysis and Applications (Editor-in-Chief), Various Journals (Referee: Journals)

Department
▷ Research Group: Institute for Quantum Studies (Department Representative)

• TEACHING ASSIGNMENTS DURING 2008

Spring
▷ MATH 664. — Seminar in Applied Mathematics (total enrollment: 8)

Summer
▷ MATH 685. — Directed Studies (total enrollment: 2)

Fall
▷ MATH 603. — Methods of Applied Mathematics II (total enrollment: 16)
▷ MATH 685. — Directed Studies (total enrollment: 1)

• PRESENTATIONS DURING 2008
▷ “Construction of Solutions for the Cubic Nonlinear Schrödinger Equation with Distributed Coefficients in Optics,” Physics of Quantum electronics Symposium, Institute for Quantum Studies, Texas A&M University, College Station, TX, January, 2008. (Invited)
▷ “An Introductory Mathematical Study of Greenhouse Gas Molecules and Greenhouse Effects,” PDE Seminar, Mathematics Department, University of Houston, Houston, TX, February, 2008. (Invited)
Diego, CA, March, 2008. (Invited)


“Exact Spatial Soliton Solutions of Two-Dimensional Generalized Nonlinear Schrödinger Equation with Distributed Coefficients,” Texas PDE Conference 2008, University of Houston, Houston, TX, April, 2008. (Invited)


“Dimensional Scaling for Atoms and Molecules,” Department of Physics and Astronomy, University of Calgary, Calgary, Alberta, Canada, May, 2008. (Invited)


“Some Mathematical Problems in the Study of Wind Power Generation,” TIMS Year-End Seminar and Banquet, TIMS/Mathematics Department, National Taiwan University, Taipei, Taiwan, December, 2008. (Invited)

PUBLICATIONS DURING 2008


Physics, vol. 50, 749-752.
• SERVICE DURING 2008

International
▷ Event: Mathematisches Forschungsinstitut Oberwolfach MFO Miniworkshop (Organizer), 5th European Congress of Mathematics Minisymposium, Reviews in Mathematical Physics, Physica D (Organizer)

National
▷ Editorial/Board: Journal of Mathematical Analysis and Applications, Instability of Nonlinear Dispersive Solitary Waves (Referee: Journals)

Department
▷ Event: Mathematical Physics and Harmonic Analysis Seminar (Organizer)

• TEACHING ASSIGNMENTS DURING 2008

Spring
▷ MATH 308(H) — Differential Equations (total enrollment: 32)
▷ MATH 308. — Differential Equations (total enrollment: 112)

Summer
▷ MATH 412. — Theory of Partial Differential Equations (total enrollment: 16)

Fall
▷ MATH 251. — Engineering Mathematics III (total enrollment: 175)

• RESEARCH PROJECTS DURING 2008

Federal
▷ Nonlinear Dispersive Hamiltonian Systems: Solitary Waves and Global Attractions, National Science Foundation

• PRESENTATIONS DURING 2008

▷ “Attraction to Solitary Waves and Related Aspects of Physics,” MFO Miniworkshop, Oberwolfach, Germany, February, 2008.( Individual)
▷ Texas A&M University, Mathematical Physics Seminar, College Station, TX, March, 2008.( Individual)
▷ Courant Institute, Analysis Seminar, New York, NY, November, 2008.( Individual)
▷ McGill University, Analysis Seminar, Quebec, Canada, November, 2008.( Individual)
• SERVICE DURING 2008

International
▷ Editorial/Board: *International Journal of Mechanics and Solids* (Member)

National

• TEACHING ASSIGNMENTS DURING 2008

Spring
▷ MATH 151. — *Engineering Mathematics I* (total enrollment: 136)
▷ MATH 401. — *Advanced Engineering Mathematics* (total enrollment: 22)

Summer
▷ MATH 311. — *Topics in Applied Mathematics I* (total enrollment: 20)
▷ MATH 602. — *Methods and Applications of Partial Differential Equations* (total enrollment: 30)
▷ MATH 685. — *Directed Studies* (total enrollment: 1)

• PRESENTATIONS DURING 2008

▷ “Diffusive Slowdown of Instabilities in Three-Layer Hele-Shaw Flows,” Texas PDE Conference, Houston, TX, April, 2008. (Individual)
▷ “Hydrodynamic Instability in Hele-Shaw and Porous Media Flows,” Department of Mathematics, Universidad Tecnica Federico Santa Maria, Valparaiso, Chile, September, 2008. (Invited)

• PUBLICATIONS DURING 2008


• SERVICE DURING 2008

International
▷ Editorial/Board: European Series in Applied and Industrial Mathematics-Probability and Statistics (Referee: Journals)

National
▷ Committee/Panel: Who’s Who in American Universities and Colleges (Member)

Regional
▷ Event: High School Math Contest (Member)

University
▷ Committee/Panel: Faculty Senate University Bookstore Advisory Committee (Member), Undergraduate Studies Committee (Member)

College
▷ Committee/Panel: College Quality Enhancement Plan Council (Member)

Department
▷ Committee/Panel: Engineering Curriculum Committee (Member)

• TEACHING ASSIGNMENTS DURING 2008

Spring
▷ MATH 625. — Applied Stochastic Differential Equations (total enrollment: 6)

Fall
▷ MATH 171. — Analytic Geometry and Calculus (total enrollment: 30)
▷ MATH 619. — Applied Probability (total enrollment: 17)

• RESEARCH PROJECTS DURING 2008

Federal
▷ MCTP: Transition Points for High School and Undergraduate Mathematics Students, National Science Foundation

• PRESENTATIONS DURING 2008
▷ New Mexico State University, Las Cruces, NM, March, 2008. (Individual)

• PUBLICATIONS DURING 2008

428 2008 Mathematics annual report
DeBlassie, R.D. (2008) The Exit Place of Brownian Motion in the Complement of a Horn
• CHAIRS/PROFESSORSHIPS
  ▶ Walter E. Koss Endowed Professorship /2008/

• SERVICE DURING 2008
  International
  ▶ Editorial/Board: *Int. J. Wavelets Multiresolut. Inf. Process* (Associate Editor)
  National
  ▶ Event: L1 Minimization Workshop (Organizer)
  ▶ Advisory Board: *Found. Comput. Math* (Member)
  ▶ Committee/Panel: Found. Comput. Math. (Member), ICM 2010 Committee (Member)

• TEACHING ASSIGNMENTS DURING 2008
  Spring
  ▶ MATH 664. — *Seminar in Applied Mathematics* (total enrollment: 7)
  Fall
  ▶ MATH 689. — *Special Topics in* (total enrollment: 2)

• RESEARCH PROJECTS DURING 2008
  Other
  ▶ Computational Duality, *Princeton University*

• PRESENTATIONS DURING 2008
  ▶ El Escorial Short Course on Signal Processing, 2008. (Individual)

• PUBLICATIONS DURING 2008

2008 Mathematics annual report
• SERVICE DURING 2008

International
▷ Editorial/Board: Bilateral Israeli/United States Foundation, Joint India-NSF (Review: Proposals)

National
▷ Editorial/Board: City University of New York Research, NSERC Research (Review: Proposals), CRC Research Notes in Mathematics (Editor), Integral Equations and Operator Theory (Member), Journal of Functional Analysis and Applications (Member), Journal of Operator Theory (Member), Various Research Journals (Referee: Journals)

University
▷ Event: Texas A&M University Workshop (Organizer)
▷ Committee/Panel: Distinguished Professors Executive Committee (Chair)

Department
▷ Committee/Panel: Department Committee D (Chair), Distinguished Position Recruitment Committee (Member)

• TEACHING ASSIGNMENTS DURING 2008

Fall
▷ MATH 467. — Modern Geometry (total enrollment: 28)

• RESEARCH PROJECTS DURING 2008

Federal
▷ Invariants for Multivariate Operator Theory, National Science Foundation

• PRESENTATIONS DURING 2008

▷ University of Hawaii, Hawaii, February, 2008.( Individual)
▷ “Operator Theory with Applications to Geometry,” Quinhuangdao, China, June, 2008.( Invited)
▷ Mathematics Department, Fudan University, Shanghai, China, June, 2008.( Individual)
▷ “Legacy of R. L. Moore,” Austin, TX, July, 2008.( Invited)
▷ International Workshop on Operator Theory and it’s Applications, Williamsburg, VA, July, 2008.( Invited)
▷ Multivariate Operator Theory Concentration Week, Texas A&M University, College Station, TX, July, 2008.( Individual)
▷ North-South Analysis Workshop, Mexico City, Mexico, November, 2008.( Invited)
“Hilbert Spaces of Analytic Functions,” Centre de Recherches Mathématiques, Montreal, Canada, December, 2008. (Invited)

• PUBLICATIONS DURING 2008
• SERVICE DURING 2008

International
▷ Editorial/Board: Canada’s NSERC (Review: Proposals), Springer, Verlag (Referee), Publ. I.H.E.S., Tohoku Math. J. (Referee: Journals)

National
▷ Committee/Panel: National Science Foundation (Panelist)

Department
▷ Event: Linear Analysis Seminar (Organizer)

• TEACHING ASSIGNMENTS DURING 2008

Spring
▷ MATH 251. — Engineering Mathematics III (total enrollment: 82)
▷ MATH 656. — Functional Analysis II (total enrollment: 5)
▷ MATH 685. — Directed Studies (total enrollment: 3)
▷ MATH 691. — Research (total enrollment: 2)

Summer
▷ MATH 684. — Professional Internship (total enrollment: 1)
▷ MATH 691. — Research (total enrollment: 2)

Fall
▷ MATH 607. — Real Variables I (total enrollment: 30)
▷ MATH 685. — Directed Studies (total enrollment: 2)
▷ MATH 691. — Research (total enrollment: 3)

• RESEARCH PROJECTS DURING 2008

Federal
▷ (REN) Free Probability Theory and Applications to Free Group Factors, National Science Foundation

• PRESENTATIONS DURING 2008
Invited)


▷ “Horn’s Inequalities and Connes’ Embedding Problem,” AMS Meeting Special Session in Operator Algebras, Bloomington, IN, April, 2008. (Invited)

▷ “On Sums of Hermitian Matrices and Approximation of Infinite Dimensional Operators,” University of Texas, San Antonio, TX, April, 2008. (Individual)


▷ “On Sums of Hermitian Operators in Finite von Neumann Algebras,” Analysis Seminar, University of Houston, Houston, TX, October, 2008. (Invited)


▷ “Some Results on Approximation in $II_1$ Factors,” Analysis Seminar, University of Glasgow, United Kingdom, November, 2008. (Invited)

• PUBLICATIONS DURING 2008


• ADDITIONAL UNIVERSITY TITLES HELD DURING 2008
  ▶ Interim Director, Institute for Scientific Computation, College of Science, [2008]
  ▶ Member, Interdisciplinary Faculty, Computational Nanoscience and Materials - IGERT, [2006]

• SERVICE DURING 2008

  International
  ▶ Editorial/Board: Georigian, Norwegian, UK Agencies (Review: Proposals), Norway Research Council, Swiss National Science Foundation (Reviewer)

  National

• TEACHING ASSIGNMENTS DURING 2008

  Spring
  ▶ MATH 685. — Directed Studies (total enrollment: 1)
  ▶ MATH 689. — Special Topics in (total enrollment: 7)
  ▶ MATH 691. — Research (total enrollment: 4)

  Summer
  ▶ MATH 684. — Professional Internship (total enrollment: 1)
  ▶ MATH 685. — Directed Studies (total enrollment: 3)
  ▶ MATH 691. — Research (total enrollment: 2)

  Fall
  ▶ MATH 691. — Research (total enrollment: 1)

• RESEARCH PROJECTS DURING 2008

  Federal
  ▶ Multiscale Analysis and Computation for Flows in Heterogenous Media, Department of Energy
  ▶ Multiscale Modeling and Simulation of Flow in Heterogeneous Porous Media and Their Applications, Department of Energy
CMG Research: Multi-Scale Data Assimilation of Soil Moisture Under Heterogeneous Soil Hydraulics, *National Science Foundation*

DDAS-TMRP: Collaborative Research: Adaptive Data-Driven Sensor Configuration, Modeling, and Deployment for Oil, Chemical, and Biological Contamination Near Critical Coastal Facilities, *National Science Foundation*

Iterative Upscaling of Fluid Flows in Nonlinear Deformable Porous Media, *National Science Foundation*

**Industrial**

Efficient Simulations of Geomechanics in Heterogeneous Porous Media, *Terra Nova Sciences LLC*

**International**

Development of a Computational Groundwater Model for Qatar, *Qatar Foundation*

### PRESENTATIONS DURING 2008

- Chevron, 2008. (Individual)
- CHUK, 2008. (Individual)
- Lawrence Livermore National Laboratory, Livermore, CA, 2008. (Individual)
- NTU, 2008. (Individual)
- PSU, 2008. (Individual)
- “Modeling, Analysis and Computation,” City University of Hong Kong, Hong Kong, Japan, June, 2008. (Invited)
- MCMC Workshop, Warwick, United Kingdom, June, 2008. (Poster Invited)
- GeoMath08 Workshop, Santa Fe, NM, September, 2008. (Invited)
- “Multiscale Methods for Subsurface,” University of Santiago de Compostela, Santiago de Compostela, Spain, November, 2008. (Invited)

### PUBLICATIONS DURING 2008

• SERVICE DURING 2008

International
▷ Research Group: Center for Experimental and Constructive Mathematics at Simon Fraser University (Associate Member)
▷ Professional Affiliation: Mathematical Institute of the Hungarian Academy of Science (Associate Member)

National
▷ Professional Affiliation: American Mathematical Society (Member), Janos Bolyai Mathematical Society (Member), Mathematical Association of America (Member)

• TEACHING ASSIGNMENTS DURING 2008

Spring
▷ MATH 151. — Engineering Mathematics I (total enrollment: 170)

Fall
▷ MATH 151. — Engineering Mathematics I (total enrollment: 83)

• RESEARCH PROJECTS DURING 2008

Federal
▷ Exponential Sums, National Science Foundation

• PRESENTATIONS DURING 2008

▷ Rice University, Houston, TX, April, 2008. (Individual)

• PUBLICATIONS DURING 2008

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• TEACHING ASSIGNMENTS DURING 2008
  
  Spring
  ▶ MATH 664. — Seminar in Applied Mathematics (total enrollment: 5)

• PUBLICATIONS DURING 2008
• SERVICE DURING 2008

International
▷ Editorial/Board: *Classical and Quantum Gravity, International Journal of Modern Physics D, SIGMA* (Referee: Journals)

National

Department
▷ Committee/Panel: Awards Committee (Member), Response to Changes in Physics Undergraduate Courses (Chair)

• TEACHING ASSIGNMENTS DURING 2008

Spring
▷ MATH 151. — *Engineering Mathematics I* (total enrollment: 8)
▷ MATH 485. — *Directed Studies* (total enrollment: 1)
▷ MATH 489(H) — *Special Topics in* (total enrollment: 3)
▷ MATH 489. — *Special Topics in* (total enrollment: 8)
▷ MATH 491. — *Research* (total enrollment: 1)
▷ PHYS 691. — *Research* (total enrollment: 2)

Summer
▷ PHYS 691. — *Research* (total enrollment: 1)

Fall
▷ PHYS 691. — *Research* (total enrollment: 2)

• RESEARCH PROJECTS DURING 2008

Federal
▷ Collaborative Research: Quantum Vacuum Energy, *National Science Foundation*

• PRESENTATIONS DURING 2008

▷ Meeting of Oklahoma-Texas-Louisiana Quantum Vacuum Research Group, College Station, TX, August, 2008. (Individual)
▷ Institute for Mathematics and Its Applications, University of Minnesota, MN, October, 2008. (Individual)
▷ Kavli Institute for Theoretical Physics, University of California, Santa Barbara, CA, November, 2008. (Individual)
- University of California, Santa Barbara, CA, November, 2008. (Individual)

- **PUBLICATIONS DURING 2008**
• ADDITIONAL UNIVERSITY TITLES HELD DURING 2008
  ▷ Director, Mathematics Honors Program, Mathematics, []
  ▷ Professor, Veterinary Integrative Biosciences, []

• AWARDS DURING 2008
  Department
  ▷ Service Award, Mathematics Department

• SERVICE DURING 2008
  National
  ▷ Event: Sessions of Talks, Nebraska Conference for Undergraduate Women in Mathematics
    (Moderator), What to do with Your Summer, Nebraska Conference for Undergraduate
    Women in Mathematics (Panelist), Women In Mathematics (Speaker), Women’s Faculty
    Lunch (Moderator), Women’s Faculty Lunch (Panelist)
  ▷ Committee/Panel: MAA Committee on the Profession (Chair), MAA Strategic Planning
    Committee on Meetings (Member), MAA Subcommittee on Early Career Development
    (Member), MAA Subcommittee on Science Policy (Member), NSF-DMS Funding Panel
    (Member)

  Regional
  ▷ Event: Buzz Contest at the High School Math Contest (Director)

  University
  ▷ Service Position: AWM Student Chapter (Faculty Sponsor), Dean of Faculties (Mediator),
    Junior Faculty (Mentor), Student Conflict Resolution Center (Mediator)
  ▷ Committee/Panel: Honorary Degree Committee (Member), University Tenure Mediation
    Committee (Chair), Women’s Faculty Network (Mentor)

  Department
  ▷ Service Position: Students in MS in Mathematics, Teaching Option (Mentor)
  ▷ Committee/Panel: Goldwater Scholarship Selection Committee (Member), Undergraduate
    Programs Committee (Member)

• TEACHING ASSIGNMENTS DURING 2008
  Summer
  ▷ MATH 685. — Directed Studies (total enrollment: 1)

  Fall
  ▷ MATH 304. — Linear Algebra (total enrollment: 43)
  ▷ MATH 653. — Algebra I (total enrollment: 18)
• RESEARCH PROJECTS DURING 2008

Federal

▷ Graduate Assistance in Areas of National Need, Department of Education
▷ MCTP: Transition Points for High School and Undergraduate Mathematics Students, National Science Foundation
▷ Undergraduate Student Travel to Conferences, National Science Foundation
• SERVICE DURING 2008

International
▷ Event: AMS Special Session on Group Theory (Organizer), Differential Equations and Topology Dedicated to the 100-th Anniversary of L. Pontryagin (Organizer), Groups Generated by Automata (Organizer), Mathematics Competition for Young Mathematicians in Ukraine (Organizer), Self-Similarity and Branching in Group Theory (Organizer), Theory and Complexity (Organizer), Workshop on Group Theory and Dynamical Systems (Organizer)


National

Department
▷ Event: Groups and Dynamics Seminar (Head)

• TEACHING ASSIGNMENTS DURING 2008

Spring
▷ MATH 691. — Research (total enrollment: 2)

Summer
▷ MATH 685. — Directed Studies (total enrollment: 1)
▷ MATH 691. — Research (total enrollment: 2)

Fall
▷ MATH 415(H) — Modern Algebra I (total enrollment: 6)
▷ MATH 415. — Modern Algebra I (total enrollment: 16)
▷ MATH 691. — Research (total enrollment: 3)
• RESEARCH PROJECTS DURING 2008
  Federal
  ▶ Algebraic, Combinatorial, Spectral, and Algorithmic Properties of Groups Generated by
    Finite Automata, National Science Foundation

• PRESENTATIONS DURING 2008
  ▶ “Self-similar Groups, Operator Algebras and Schur Complement,” XXVIII Congress in
    Harmonic Analysis, Perugia, Italy, May, 2008. (Invited)
  ▶ “On Subgroup Structure of a 3-Generated 2-Group of Intermediate Growth,” Profinite
    and Asymptotic Group Theory, Oberwolfach, Germany, June, 2008. (Invited)
  ▶ “Self-similar Groups, Operator Algebras and Schur Complement,” International Conference
    “Differential Equations and Topology” Dedicated to the Centennial Anniversary of
    L.S. Pontryagin, Moscow State University, Moscow, Russia, June, 2008. (Invited)
  ▶ “The Beginning of the Classification of Self-similar Groups,” Group Theory and Complex-
    ity, Steklov Mathematical Institute, Moscow, Russia, July, 2008. (Invited)

• PUBLICATIONS DURING 2008
  ▶ Grigorchuk, R.; Bondarenko, I.; Kravchenko, R.; Muntyan, Y.; Nekrashevych, V.;
    FA Property. Geometry and Dynamics of Groups and Spaces (pp. 351-373). Switzerland:
    Birkhauser Verlag Basel.
    de L’Enseignement Mathematique (pp. 103-105).
    Mathematique. Revue Internationale. IIe Serie (pp. 28).
    Spectrum of the Hanoi Towers Group on Three Pegs 183-198.
• ADDITIONAL UNIVERSITY TITLES HELD DURING 2008
  ▶ Member, Interdisciplinary Faculty, Computational Nanoscience and Materials - IGERT,

• SERVICE DURING 2008
  International

  National
  ▶ Editorial/Board: National Science Foundation (Review: Proposals), *Journal of Mathematical Analysis and Applications* (Associate Editor)

• TEACHING ASSIGNMENTS DURING 2008
  Spring
  ▶ MATH 602. — Methods and Applications of Partial Differential Equations (total enrollment: 10)
  ▶ MATH 691. — Research (total enrollment: 1)

  Summer
  ▶ MATH 691. — Research (total enrollment: 1)

  Fall
  ▶ MATH 412. — Theory of Partial Differential Equations (total enrollment: 21)
  ▶ MATH 602. — Methods and Applications of Partial Differential Equations (total enrollment: 35)
  ▶ MATH 691. — Research (total enrollment: 1)

• RESEARCH PROJECTS DURING 2008
  Federal
  ▶ Proposal for Supporting the Organization of a Workshop on L1-based Nonlinear Approximation Techniques, *Department of Defense*
  ▶ Support of Stockpile Stewardship Program, *Lawrence Livermore National Laboratory*
  ▶ A Framework for Developing Novel Detection Systems Focused on Interdicting Shielded, *National Science Foundation*
  ▶ Discontinuous Galerkin Methods for PDE’s with Heterogeneous Coefficients, *National Science Foundation*
  ▶ IGERT: New Mathematical Tools for Next Generation Materials, *National Science Foundation*
L1-Based Approximation Techniques for PDEs, National Science Foundation
Nonlinear Finite Element Approximation of First-Order PDE’s in L1, National Science Foundation

PRESENTATIONS DURING 2008

“Computational and Applied Mathematics Colloquium,” Penn State University, University Park, PA, October, 2008. (Individual)
“Seminar of Analysis,” University of Texas, Austin, TX, October, 2008. (Individual)

PUBLICATIONS DURING 2008

• SERVICE DURING 2008
  
  National
  ▶ Editorial/Board: *Journal of Math Analysis and Applications* (Associate Editor)

  Department
  ▶ Committee/Panel: SEE Math Camp (Instructor)

• TEACHING ASSIGNMENTS DURING 2008
  
  Spring
  ▶ MATH 151. — *Engineering Mathematics I* (total enrollment: 89)
  ▶ MATH 222. — *Linear Algebra* (total enrollment: 28)

  Summer
  ▶ MATH 152. — *Engineering Mathematics II* (total enrollment: 74)

  Fall
  ▶ MATH 221. — *Several Variable Calculus* (total enrollment: 27)
  ▶ MATH 302. — *Discrete Mathematics* (total enrollment: 15)
SERVICE DURING 2008

International
▷ Editorial/Board: *International Journal of Number Theory* (Referee: Journals)

National
▷ Editorial/Board: *Advances in Mathematics* (Referee: Journals), *American Mathematical Monthly* (Editor)

TEACHING ASSIGNMENTS DURING 2008

Spring
▷ MATH 308. — *Differential Equations* (total enrollment: 42)

Fall
▷ MATH 302. — *Discrete Mathematics* (total enrollment: 22)
▷ MATH 490. — *The Putnam Challenge* (total enrollment: 11)
• SERVICE DURING 2008

State
▷ Event: Texas State Conference of AAUP (Vice President)

University
▷ Committee/Panel: Faculty Senate (Faculty Senator - 10), Faculty Senate Executive Committee (Member), Steering Committee for Freshman Convocation (Member), System Faculty Council (Coordinator)

Department
▷ Committee/Panel: Budget Information Committee (Member)

• TEACHING ASSIGNMENTS DURING 2008

Spring
▷ MATH 304. — Linear Algebra (total enrollment: 20)
▷ MATH 613. — Graph Theory (total enrollment: 8)

Summer
▷ MATH 304. — Linear Algebra (total enrollment: 51)

Retired 08/31/2008.
• SERVICE DURING 2008

International
▷ Editorial/Board: SIAM Journal of Mathematical Analysis (Referee: Journals)

National

Department
▷ Committee/Panel: Engineering Math Committee (Member), Executive Committee (Member), Outreach Activities Committee (Member), Undergraduate Programs Committee (Member)

• TEACHING ASSIGNMENTS DURING 2008

Spring
▷ MATH 152. — Engineering Mathematics II (total enrollment: 33)

Fall
▷ MATH 151. — Engineering Mathematics I (total enrollment: 57)
▷ MATH 611. — Ordinary Differential Equations (total enrollment: 12)

• RESEARCH PROJECTS DURING 2008

Federal
▷ Stability of Shock Waves and Related Structures in Combustion Models, Thin Film Flows and General Conservative Systems, National Science Foundation

• PRESENTATIONS DURING 2008

▷ Michigan State University, East Lansing MI, January, 2008. (Individual)

• PUBLICATIONS DURING 2008

• **CHAIRS/PROFESSORSHIPS**
  ▶ Arthur George and Mary Emolene Owen Chair in Mathematics /1984/

• **SERVICE DURING 2008**
  
  **International**
  ▶ Editorial/Board: Mathematische Annalen, Extracta Mathematicae (Member)

  **National**
  ▶ Event: Organizing Committee, Workshop on Geometry and Alg (Organizer)
  ▶ Editorial/Board: Houston Journal of Mathematics (Member), Positivity (Member), Various Journals (Referee: Journals)
  ▶ Committee/Panel: Organizing Committee, SUMIRFAS (Chair)

  **Department**
  ▶ Event: Workshop in Linear Analysis and Probability (Director)
  ▶ Committee/Panel: Distinguished Professorship Promotion Committee (Member), Endowed Professorship Committee (Chair), Executive Committee (Member)

• **TEACHING ASSIGNMENTS DURING 2008**
  
  **Spring**
  ▶ MATH 608. — **Real Variables II** (total enrollment: 9)
  ▶ MATH 663. — **Seminar in Analysis** (total enrollment: 6)
  ▶ MATH 691. — **Research** (total enrollment: 1)

  **Summer**
  ▶ MATH 685. — **Directed Studies** (total enrollment: 1)
  ▶ MATH 691. — **Research** (total enrollment: 1)

  **Fall**
  ▶ MATH 663. — **Seminar in Analysis** (total enrollment: 11)
  ▶ MATH 691. — **Research** (total enrollment: 1)

• **RESEARCH PROJECTS DURING 2008**
  
  **Federal**
  ▶ (REN) Geometry of Banach Spaces and Operator Spaces, *National Science Foundation*
  ▶ Workshop in Analysis and Probability, *National Science Foundation*

  **Private**
Topics in the Geometry of Banach Spaces, *U.S. Israel Binational Science Foundation*

**PRESENTATIONS DURING 2008**
- University of Texas, San Antonio, TX, February, 2008. (Invited)
- Phenomena in High Dimensions 4th Annual Conference, Seville, Spain, June, 2008. (Invited)
- Kent State University, Kent, Ohio, October, 2008. (Invited)
- Rice University, Houston, TX, October, 2008. (Invited)

**PUBLICATIONS DURING 2008**
GUIDO KANSCHAT
ASSISTANT PROFESSOR (979) 845-7632
MATH-Numerical Analysis & Scientific Computations kanschat@tamu.edu

• SERVICE DURING 2008

International
▷ Event: International Conference on Modeling, Simulation and Optimization of Complex Processes (Organizer)

National

University
▷ Committee/Panel: Dean of Faculties’ Academic Leadership Development Orientation (Member), Faculty Senate (Faculty Senator - 09), Faculty Senate (Caucus Leader)

• TEACHING ASSIGNMENTS DURING 2008

Spring
▷ MATH 601. — Methods of Applied Mathematics I (total enrollment: 35)

Summer
▷ MATH 685. — Directed Studies (total enrollment: 1)

Fall
▷ MATH 308. — Differential Equations (total enrollment: 111)

• RESEARCH PROJECTS DURING 2008

Federal
▷ A Framework for Developing Novel Detection Systems Focused on Interdicting Shielded, National Science Foundation
▷ Collaborative Research: Tuning-Free Adaptive Multilevel Discontinuous Galerkin Methods for Maxwell’s Equations, National Science Foundation
▷ Discontinuous Galerkin Methods for PDE’s with Heterogeneous Coefficients, National Science Foundation

• PRESENTATIONS DURING 2008

▷ Virginia Tech, Blacksburg, VA, April, 2008. (Individual)
▷ Sandia National Laboratories, Albuquerque, NM, June, 2008. (Individual)
▷ Fraunhofer Institut Kaiserslautern, Kaiserslautern, Germany, July, 2008. (Individual)
Technical University Aachen, Aachen, Germany, July, 2008.( Individual)
Universidad Autonoma, Madrid, Spain, August, 2008.( Individual)
Texas A&M University, College Station, TX, September, 2008.( Individual)
Rice University, Houston, TX, October, 2008.( Individual)
Rensselaer Polytechnic Institute, Troy, NY, December, 2008.( Individual)

• PUBLICATIONS DURING 2008
• SERVICE DURING 2008

International
▷ Editorial/Board: *International Journal of Math* (Referee: Journals)

National

Department
▷ Event: Concentration Week in Operator Algebras, Dynamics, and Classification (Organizer), Talk on Functional Analysis at the Texas A&M University Graduate Student Recruitment Weekend (Speaker), Talk on the Complexity of Classification Problems in the Seminar Series for Students in the MCTP and REU (Speaker)

• TEACHING ASSIGNMENTS DURING 2008

Spring
▷ MATH 251. — Engineering Mathematics III (total enrollment: 90)
▷ MATH 691. — Research (total enrollment: 1)

Summer
▷ MATH 691. — Research (total enrollment: 1)

Fall
▷ MATH 308. — Differential Equations (total enrollment: 107)
▷ MATH 691. — Research (total enrollment: 1)

• RESEARCH PROJECTS DURING 2008

Federal
▷ Dynamics, Geometry, and Operator Algebras, *National Science Foundation*

• PRESENTATIONS DURING 2008

▷ “Workshop on C*-Algebras Associated to Discrete and Dynamical Systems,” Banff International Research Station, Canada, January, 2008. (Invited)
▷ Análisis y Física-Matemática Conference, Pachuca, Mexico, January, 2008. (Invited)
▷ “Linear Analysis Seminar,” Texas A&M University, College Station, TX, February, 2008. (Individual)
“Spring School in Groups and Dynamics,” Les Diablerets, Switzerland, March, 2008. (Invited)
“Ergodic Theory and Dynamical Systems Seminar,” Université de Paris 13, France, June, 2008. (Individual)
“Operator Algebra Seminar,” University of Tokyo, Japan, June, 2008. (Individual)
“Concentration Week in Operator Algebras, Dynamics, and Classification,” Texas A&M University, College Station, TX, August, 2008. (Individual)
C*-Algebras Workshop at the Mathematisches Forschungsinstitut Oberwolfach, Oberwolfach, Germany, August, 2008. (Invited)
“Colloquium,” Texas A&M University, College Station, TX, September, 2008. (Individual)
“Analysis Seminar,” University of Houston, Houston, TX, October, 2008. (Individual)
“Groups and Dynamics Seminar,” Texas A&M University, College Station, TX, October, 2008. (Individual)

PUBLICATIONS DURING 2008
• SERVICE DURING 2008

National
▷ Editorial/Board: Mathematical Biosciences (Referee: Journals)

Department
▷ Service Position: Java Function Class (Developer), MacDviX, a TeX dvi Previewer for OS X (Developer), MacGhost View, Postscript Previewer for OS X (Developer), Main Programmer for the Java-based Finite Math and Applied Calculus Web Projects (Developer)

• TEACHING ASSIGNMENTS DURING 2008

Spring
▷ MATH 609. — Numerical Analysis (total enrollment: 6)

Summer
▷ MATH 601. — Methods of Applied Mathematics I (total enrollment: 19)

Fall
▷ MATH 172. — Calculus (total enrollment: 26)
▷ MATH 308. — Differential Equations (total enrollment: 51)

• PUBLICATIONS DURING 2008
• ADDITIONAL UNIVERSITY TITLES HELD DURING 2008
  ⊳ Member, Interdisciplinary Faculty, Computational Nanoscience and Materials - IGERT, [2006]

• AWARDS DURING 2008
  College
  ⊳ Distinguished Achievement Award - Teaching, The Association of Former Students

• SERVICE DURING 2008
  International

  National
  ⊳ Event: SIAM Student Paper Contest (Judge)

  University
  ⊳ Event: Applied Mathematical, Statistical and Computational Sciences: The Key to Unlocking the Landmark Challenges (Participant), Centers for Advanced Biomedical Imaging and Charged Particle Research (Participant), Mini-symposium Novel Methods of Medical Imaging (Organizer), Nuclear Threat Reduction: The Necessary Interface of Technology and Policy (Participant)
  ⊳ Committee/Panel: Executive Committee and Core Area 2 (Member)

  Department
  ⊳ Event: Math Awareness Open House (Organizer), Math Physics and Harmonic Analysis Seminar (Co-Organizer), MCTP Program (Speaker)
  ⊳ Committee/Panel: Koss Prof. Hiring Committee (Member), Math Awareness Committee (Chair), Outreach Committee (Chair), Sub-Committee P (Member), Talent Search (Chair)

• TEACHING ASSIGNMENTS DURING 2008
Spring
▷ MATH 612. — Partial Differential Equations (total enrollment: 7)
▷ MATH 685. — Directed Studies (total enrollment: 1)
▷ MATH 691. — Research (total enrollment: 1)

Summer
▷ MATH 691. — Research (total enrollment: 4)

Fall
▷ MATH 308.(H) — Differential Equations (total enrollment: 22)
▷ MATH 664. — Seminar in Applied Mathematics (total enrollment: 10)
▷ MATH 691. — Research (total enrollment: 2)

• RESEARCH PROJECTS DURING 2008

Federal
▷ A Framework for Developing Novel Detection Systems Focused on Interdicting Shielded, National Science Foundation
▷ Analysis on Graphs and its Applications, National Science Foundation
▷ Mathematical Methods for Novel Modalities of Medical Imaging, National Science Foundation
▷ MCTP: Transition Points for High School and Undergraduate Mathematics Students, National Science Foundation

State
▷ Mathematical Techniques in Novel Modalities of Medical Imaging, Texas Higher Education Coordinating Board

• PRESENTATIONS DURING 2008

▷ “Can One Hear the Heat of a Body?,” Mathematics of Thermoacoustic Tomography, Applied Math Colloquium MIT, Cambridge, MA, April, 2008. (Invited)
▷ “Can One Hear the Heat of a Body?,” Mathematics of Thermoacoustic Tomography, Tufts University, Medford, MA, April, 2008. (Invited)

• PUBLICATIONS DURING 2008

• SERVICE DURING 2008

International

National
▷ Committee/Panel: AMS Committee (Member)

Department
▷ Event: Geometry Seminar Committee and the Working Geometry Seminar (Organizer)

• TEACHING ASSIGNMENTS DURING 2008

Spring
▷ MATH 622. — Differential Geometry of Curves (total enrollment: 19)
▷ MATH 691. — Research (total enrollment: 1)

Summer
▷ MATH 685. — Directed Studies (total enrollment: 1)
▷ MATH 691. — Research (total enrollment: 1)

Fall
▷ MATH 251. — Engineering Mathematics III (total enrollment: 104)
▷ MATH 662. — Seminar in Algebra (total enrollment: 7)
▷ MATH 691. — Research (total enrollment: 1)

• RESEARCH PROJECTS DURING 2008

Federal
▷ Analytic Geometry and Representation Theory, *National Science Foundation*
▷ Collaborative Research: Exterior Differential System Approach to Periodic Orbits in Hamiltonian Systems, *National Science Foundation*
▷ Geometric Applications of Exterior Differential Systems, *National Science Foundation*

• PRESENTATIONS DURING 2008
AIM Workshop on Geometry of Tensors, July, 2008. (Individual)
MSRI Summer Graduate Workshop, July, 2008. (Individual)

**PUBLICATIONS DURING 2008**

• SERVICE DURING 2008

International

▷ Editorial/Board: Canadian NSERC Grants, National Research Council COBASE Grants Program, MITACS - Canadian Grant (Review: Proposals)
▷ Committee/Panel: Scientific Committee of the Conference International Conference on Operator Algebras and Applications in Morocco (Member)

National

▷ Committee/Panel: Editorial Committee Operators and Matrices, Involve (Member), Grant Selection Panel (Member)

College

▷ Committee/Panel: Undergraduate Curriculum Committee (Member)

Department

▷ Service Position: Undergraduate Studies (Director)
▷ Event: REU/VIGRE Program on “Wavelet Theory and Matrix Analysis” (Director), Workshop in Analysis and Probability (Co-Organizer)
▷ Committee/Panel: Honors Committee (Member)

• TEACHING ASSIGNMENTS DURING 2008

Spring

▷ MATH 423(H) — Linear Algebra II (total enrollment: 3)
▷ MATH 423. — Linear Algebra II (total enrollment: 9)
▷ MATH 663. — Seminar in Analysis (total enrollment: 6)
▷ MATH 685. — Directed Studies (total enrollment: 1)
▷ MATH 691. — Research (total enrollment: 1)

Summer

▷ MATH 663. — Seminar in Analysis (total enrollment: 6)
▷ MATH 685. — Directed Studies (total enrollment: 2)
▷ MATH 691. — Research (total enrollment: 1)

• RESEARCH PROJECTS DURING 2008

Federal
REU Site: Undergraduate Research in Mathematical Sciences and its Applications, National Science Foundation
Workshop in Analysis and Probability, National Science Foundation

• PRESENTATIONS DURING 2008
  • American Mathematics Society, San Diego, CA, January, 2008. (Individual)
  • “Operator Algebras and Applications in Morocco,” Marrakech, April, 2008. (Individual)
  • American Mathematics Society, Vancouver, BC, Canada, October, 2008. (Individual)
  • University of Cincinnati, Cincinnati, OH, November, 2008. (Individual)

• PUBLICATIONS DURING 2008
• ADDITIONAL UNIVERSITY TITLES HELD DURING 2008
  ▶ Member, Interdisciplinary Faculty, Computational Nanoscience and Materials - IGERT, [2006]

• AWARDS DURING 2008
  International
  ▶ Erasmus Mundus Visiting Scholar Award, University of Kaiserslautern
  ▶ Medal of the Institute of Mathematics and Informatics, Bulgarian Academy of Sciences
  ▶ Pichoridis Distinguished Lectureship, University of Crete, Greece

• SERVICE DURING 2008
  International
  National
  ▶ Editorial/Board: National Science Foundation-DMS (Review: Proposals), Numerical
    Methods for Partial Differential Equations (Member), Journal on Numerical Mathematics
    (Member), Computational Methods in Applied Mathematics (Editor), J. Numer. Math.,
    Numer. Methods for PDE’s, Comm. Numer. Meth in Engng. (Referee: Journals), Nu-
    Journals)
  College
  ▶ Committee/Panel: Grievance Committee (Elected Member)
  Department
  ▶ Committee/Panel: Award Committee (Member), Promotion Committee (Member), Un-
    dergraduate Curriculum Development Committee (Member)

• TEACHING ASSIGNMENTS DURING 2008
  Spring
  ▶ MATH 610. — Numerical Methods in Partial Differential Equations (total enrollment: 12)
  Fall
  ▶ MATH 172. — Calculus (total enrollment: 40)
  ▶ MATH 609. — Numerical Analysis (total enrollment: 16)
  ▶ MATH 691. — Research (total enrollment: 1)

• RESEARCH PROJECTS DURING 2008
Federal

- DDAS-TMRP: Collaborative Research: Adaptive Data-Driven Sensor Configuration, Modeling, and Deployment for Oil, Chemical, and Biological Contamination Near Critical Coastal Facilities, *National Science Foundation*

- Discontinuous Galerkin Methods for PDE’s with Heterogeneous Coefficients, *National Science Foundation*

- PRESENTATIONS DURING 2008
  - “Numerical Analysis Seminar,” University of Crete, Greece, June, 2008. (Individual)

- PUBLICATIONS DURING 2008
• **TEACHING ASSIGNMENTS DURING 2008**

  **Spring**
  - MATH 172. — *Calculus* (total enrollment: 33)
  - MATH 425. — *The Mathematics of Contingent Claims* (total enrollment: 27)

  **Fall**
  - MATH 325. — *The Mathematics of Interest* (total enrollment: 50)
  - MATH 411. — *Mathematical Probability* (total enrollment: 32)

• **RESEARCH PROJECTS DURING 2008**

  **Federal**
  - MCTP: Transition Points for High School and Undergraduate Mathematics Students, *National Science Foundation*
PAULO LIMA-FILHO

PROFESSOR
MATH-Algebraic Geometry, Topology
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• ADDITIONAL UNIVERSITY TITLES HELD DURING 2008
  ▷ Graduate Advisor, Mathematics Graduate Advising Office, Mathematics, [2006]

• SERVICE DURING 2008
  National
    ▷ Editorial/Board: Homology, Homotopy and Applications (Referee: Journals)
  College
    ▷ Committee/Panel: Graduate Instruction Committee (Member)

• TEACHING ASSIGNMENTS DURING 2008
  Spring
    ▷ MATH 637 — Topology II (total enrollment: 1)
  Fall
    ▷ MATH 643 — Algebraic Topology I (total enrollment: 1)

• RESEARCH PROJECTS DURING 2008
  Federal
    ▷ Graduate Assistance in Areas of National Need, Department of Education

• PRESENTATIONS DURING 2008
  ▷ Geometry and Mathematical Physics, Albuquerque, NM, October, 2008.( Individual)
  ▷ University of Iowa, Iowa City, IA, November, 2008.( Individual)

• PUBLICATIONS DURING 2008
• SERVICE DURING 2008

National
  ▷ Editorial/Board: *Inverse Problems* (Referee: Journals)

Regional
  ▷ Committee/Panel: Exam Committee High School Math Conference (Member)

• TEACHING ASSIGNMENTS DURING 2008

Spring
  ▷ MATH 152. — Engineering Mathematics II (total enrollment: 95)
  ▷ MATH 222. — Linear Algebra (total enrollment: 15)

Summer
  ▷ MATH 409. — Advanced Calculus I (total enrollment: 17)

Fall
  ▷ MATH 602. — Methods and Applications of Partial Differential Equations (total enrollment: 7)
  ▷ MATH 629. — History of Mathematics (total enrollment: 10)
• AWARDS DURING 2008
  National
  ▶ Sloan Research Fellowships, Alfred P. Sloan Foundation

• TEACHING ASSIGNMENTS DURING 2008
  Spring
  ▶ MATH 689. — Special Topics in (total enrollment: 9)
  Summer
  ▶ MATH 685. — Directed Studies (total enrollment: 2)
  Fall
  ▶ MATH 151. — Engineering Mathematics I (total enrollment: 180)

• RESEARCH PROJECTS DURING 2008
  Federal
  ▶ Multivariate Hypergeometric Functions and Equations, National Science Foundation

• PRESENTATIONS DURING 2008
  ▶ “Special Session on D-modules,” American Mathematical Society, Bloomington, IN, April, 2008. (Individual)
  ▶ Fourth Argentinian National Algebra Meeting, Córdoba, Cordoba Argentina, August, 2008. (Individual)
  ▶ University of Illinois Chicago, Chicago, IL, November, 2008. (Individual)
FRANCIS J. NARCOICH

PROFESSOR (979) 845-7369
MATH-Approximation Theory & Math. Physics fnarc@math.tamu.edu

- ADDITIONAL UNIVERSITY TITLES HELD DURING 2008
  - Director, Center for Approximation Theory (CAT), Mathematics
- SERVICE DURING 2008
  - International
    - Editorial/Board: *Foundations of Computational Mathematics* (Referee: Journals), *Numerische Mathematik* (Referee: Journals), *SIAM Journal on Numerical Analysis* (Member)
  - National
  - College
    - Committee/Panel: Tenure and Promotion Advisory Committee (Member)
  - Department
    - Service Position: Texas A&M University, Center for Approximation Theory (Director)
- TEACHING ASSIGNMENTS DURING 2008
  - Spring
    - MATH 251. — *Engineering Mathematics III* (total enrollment: 54)
    - MATH 642. — *Analysis for Applications II* (total enrollment: 7)
  - Summer
    - MATH 311. — *Topics in Applied Mathematics I* (total enrollment: 33)
    - MATH 685. — *Directed Studies* (total enrollment: 1)
  - Fall
    - MATH 658. — *Applied Harmonic Analysis* (total enrollment: 9)
    - MATH 691. — *Research* (total enrollment: 1)
- RESEARCH PROJECTS DURING 2008
  - Federal
    - Analysis and Synthesis of Scattered Data on Surfaces via Radial and Related Basis Functions, *National Science Foundation*
    - Approximation and Learning in High Dimensions, *National Science Foundation*
    - (REN) New Approaches to Scattered Data Analysis via Radial Related Basis Functions and Tight Spherical Frames, *National Science Foundation*
VOLODYMYR NEKRASHEVYCH
ASSOCIATE PROFESSOR (979) 845-2450
MATH-Combinatorial Group Theory & Functional Analysis nekrash@math.tamu.edu

• SERVICE DURING 2008

International
▷ Event: Group Theory at AMS-SBM Joint International Meeting, Rio de Janeiro, Brazil (Co-Organizer), Groups Generated by Automata Conference, Ascona, Switzerland (Co-Organizer), Groups Generated by Automata in Ascona, Switzerland (Co-Organizer)
▷ Editorial/Board: Swiss National Science Foundation (Review: Proposals), Geometriae Dedicata (Referee: Journals)
▷ Committee/Panel: Award Committee of Award for Young Mathematicians in Ukraine (Executive Secretary)

National

University
▷ Event: Groups and Dynamics Seminar (Co-Organizer)

• TEACHING ASSIGNMENTS DURING 2008

Spring
▷ MATH 614. — Dynamical Systems and Chaos (total enrollment: 7)

Fall
▷ MATH 251. — Engineering Mathematics III (total enrollment: 205)

• RESEARCH PROJECTS DURING 2008

Federal
▷ Groups Generated by Automata, National Science Foundation
▷ Iterated Monodromy Groups, National Science Foundation

• PRESENTATIONS DURING 2008
▷ “Groups Generated by Automata,” Ascona, Switzerland, February, 2008. (Invited)
▷ Geneva University, Switzerland, March, 2008. (Individual)
▷ “Discrete Structures in Conformal Geometry and Dynamics,” Spring Central Section AMS Meeting, Bloomington, IN, April, 2008. (Individual)
▷ Brasilia University, Brazil, May, 2008. (Individual)

“Group Theory,” AMS Joint International Meeting Rio de Janeiro, Brazil, June, 2008. (Individual)

“Low Dimensional Dynamics,” AMS Joint International Meeting Rio de Janeiro, Brazil, June, 2008. (Individual)

“Profinite and Asymptotic Group Theory,” Oberwolfach Meeting, Oberwolfach, Germany, June, 2008. (Invited)

Kyiv University, Ukraine, June, 2008. (Individual)

“Self-Similarity and Branching in Group Theory,” Banff, Canada, October, 2008. (Invited)

• PUBLICATIONS DURING 2008
  
  
  
• SERVICE DURING 2008

National

Department
▷ Event: Probability Seminar (Organizer)

• TEACHING ASSIGNMENTS DURING 2008

Spring
▷ MATH 411. — *Mathematical Probability* (total enrollment: 21)

Fall
▷ MATH 606. — *Theory of Probability I* (total enrollment: 6)
▷ MATH 609 — *Numerical Analysis* (total enrollment: 1)

• RESEARCH PROJECTS DURING 2008

Federal
▷ (REN) Mean-field Spin Glass Models, *National Science Foundation*
▷ Spin Glass Models, *National Science Foundation*

• PRESENTATIONS DURING 2008

▷ Probability Seminar at Texas A&M, College Station, TX, January, 2008.( Individual)
▷ Probability Seminar at Texas A&M, College Station, TX, February, 2008.( Individual)
▷ Seminar at University of California, Mathematics, Irvine, CA, April, 2008.( Individual)
▷ The Fifth International Conference on High Dimensional Probability, Luminy, France, May, 2008.( Individual)

• PUBLICATIONS DURING 2008

GRIGORIS PAOURIS
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MATH-Convex Geometric Analysis grigoris@math.tamu.edu

• SERVICE DURING 2008
  International
  ▶ Editorial/Board: Annales de l’Institute Henri Poincare Probabilites et Statistiques,
  Beitrage Algebra Geom. (Referee: Journals)
  National
  ▶ Editorial/Board: Advances in Mathematics (Referee: Journals)

• TEACHING ASSIGNMENTS DURING 2008
  Fall
  ▶ MATH 308. — Differential Equations (total enrollment: 43)

• PRESENTATIONS DURING 2008
  ▶ University of Alberta, Edmonton, Alberta, Canada, February, 2008. (Individual)
  ▶ “Miniconference on Asymptotic Convex Geometry,” University of Missouri, Columbia,
  MO, March, 2008. (Individual)
  ▶ Courant Institute of Mathematical Sciences, New York, NY, April, 2008. (Individual)
  ▶ “Informal Regional Functional Analysis Seminar,” Texas A&M University, College Station,
  TX, August, 2008. (Individual)
  ▶ “Special Session on Convex and Discrete Geometry and Asymptotic Analysis,” AMS Sec-
  tional Meeting, Vancouver, Canada, October, 2008. (Individual)

Hired 08/16/2008.
• SERVICE DURING 2008

International

▷ Editorial/Board: Archiv der Mathematik (Referee: Journals)

National


University

▷ Event: Arizona Winter School on Special Functions and Transcendence (Co-Organizer)

Department

▷ Service Position: Post-Doctoral Mentoring (Mentor)
▷ Committee/Panel: Executive Committee (Member), Mathematics Awareness Month Committee (Chair)

• TEACHING ASSIGNMENTS DURING 2008

Spring

▷ MATH 627. — Theory of Numbers (total enrollment: 9)
▷ MATH 685. — Directed Studies (total enrollment: 1)
▷ MATH 691. — Research (total enrollment: 1)

Summer

▷ MATH 685. — Directed Studies (total enrollment: 2)
▷ MATH 691. — Research (total enrollment: 2)

Fall

▷ MATH 151. — Engineering Mathematics I (total enrollment: 72)
▷ MATH 662. — Seminar in Algebra (total enrollment: 5)
▷ MATH 685. — Directed Studies (total enrollment: 1)
▷ MATH 691. — Research (total enrollment: 1)

• RESEARCH PROJECTS DURING 2008

Federal

▷ 22nd Annual Workshop on Automorphic Forms and Related Topics, National Science Foundation
▷ Southwest Center for Arithmetic Geometry, National Science Foundation
▷ Special Functions and Transcendence, National Science Foundation
• PRESENTATIONS DURING 2008
  ▶ “Algebraic Independence in Positive Characteristic,” University of Caen, Caen, France, June, 2008. (Invited)
  ▶ “Carlitz Zeta Values and Algebraic Independence,” University of Münster, Mittagseminar zur Arithmetik, Münster, Germany, June, 2008. (Individual)
  ▶ “Periods of Drinfeld Modules and Algebraic Independence,” University of Duisburg-Essen, Oberseminar Algebra, Essen, Germany, June, 2008. (Individual)

• PUBLICATIONS DURING 2008
• SERVICE DURING 2008

International

National
- Committee/Panel: Scientific Committee, Copper Mountain Multigrid Meetings (Member)

University
- Event: Conference Honoring James H. Bramble: 50 Years of Research and Beyond, Texas A&M University (Organizer)

Department
- Committee/Panel: Executive Committee (Member)

• TEACHING ASSIGNMENTS DURING 2008

Spring
- MATH 304. — Linear Algebra (total enrollment: 24)
- MATH 417. — Numerical Analysis I (total enrollment: 14)
- MATH 691. — Research (total enrollment: 1)

Summer
- MATH 691. — Research (total enrollment: 1)

Fall
- MATH 609. — Numerical Analysis (total enrollment: 8)
- MATH 691. — Research (total enrollment: 1)

• RESEARCH PROJECTS DURING 2008

Federal
- Stability and Solution Techniques for the Brinkman/Stokes Equations, Lawrence Livermore National Laboratory
- (REN) A New Approximation Technique for Maxwell’s Equations, National Science Foundation

• PRESENTATIONS DURING 2008
• PUBLICATIONS DURING 2008
• SERVICE DURING 2008

International
  ▶ Committee/Panel: Olympiad Exam Committee, Qatar (Member)

National

University
  ▶ Advisory Board: Board of Trustees of the Development Foundation (Member)

College
  ▶ Committee/Panel: International Programs Committee (Member)

• TEACHING ASSIGNMENTS DURING 2008

Spring
  ▶ MATH 311 — Topics in Applied Mathematics I (total enrollment: 18)
  ▶ MATH 691. — Research (total enrollment: 1)

Summer
  ▶ MATH 691. — Research (total enrollment: 1)

Fall
  ▶ MATH 691. — Research (total enrollment: 1)

• PRESENTATIONS DURING 2008
  ▶ Qatar Conference in P.D.E.’s, Qatar, 2008. (Individual)

• PUBLICATIONS DURING 2008
• SERVICE DURING 2008

International
▷ Editorial/Board: SIAM Journal on Numerical Analysis (Referee: Journals)

National

Department
▷ Committee/Panel: Executive Committee (Member), Subcommittee T (Member), Undergraduate Studies Committee (Member)

• TEACHING ASSIGNMENTS DURING 2008

Spring
▷ MATH 414. — Fourier Series and Wavelets (total enrollment: 30)

• RESEARCH PROJECTS DURING 2008

Federal
▷ Analysis and Numerical Methods for Transport Equations and Related Problems, National Science Foundation
▷ Approximation and Learning in High Dimensions, National Science Foundation
▷ Computational Challenges in Fluid Transport and Imaging, National Science Foundation

International
▷ Mathematical Methods and Algorithms for Computed Tomography, Ministry of Education and Science

Other
▷ Model Classes, Approximation, and Metrics for Dynamic Processing of Urban Terrain Data, University of South Carolina

• PRESENTATIONS DURING 2008


• PUBLICATIONS DURING 2008

• SERVICE DURING 2008

International
▷ Event: Groundwater Workshop in Doha Qatar (Organizer)

National
▷ Professional Affiliation: Phi Beta Kappa, Local Chapter (Member)

University
▷ Committee/Panel: Instructional Technology Council (Member)

College
▷ Service Position: Information Technology Lab (Director)
▷ Committee/Panel: Information Technology Committee (Member), Qatar Advisory Committee (Member), Technology-Mediated Instruction Committee (Member)

Department
▷ Event: Second Annual Doha Conference on Applied Mathematics and Computational Science ( Organizer)
▷ Committee/Panel: Committee of Instructional Enhancement Fees for Math 141 and 166 (Member), Computer Committee (Member), Electronic Homework Project Team (Member), Honors Committee (Member), Mathematics and Science Education Advisory Council (Member), Moving Algebra Diagnostic Committee (Member)

• TEACHING ASSIGNMENTS DURING 2008

Spring
▷ MATH 442. — Mathematical Modeling (total enrollment: 27)

Summer
▷ MATH 696. — Mathematical Communication and Technology (total enrollment: 15)

Fall
▷ MATH 171. — Analytic Geometry and Calculus (total enrollment: 28)
▷ MATH 442. — Mathematical Modeling (total enrollment: 18)

• RESEARCH PROJECTS DURING 2008

Federal
▷ TAMU STEPS: Physics, Engineering, and Mathematics (PEM) Model, National Science Foundation

International
▷ Development of a Computational Groundwater Model for Qatar, Qatar Foundation

484 2008 Mathematics annual report
• PRESENTATIONS DURING 2008
  ▶ “Doha Conference on Applied Mathematics and Computational Science,” Texas A&M University Mathematics Department, College Station, TX, 2008. (Invited)
• CHAIRS/PROFESSORSHIPS
  ▷ Arthur George and Mary Emolene Owen Chair in Mathematics [1985]

• TEACHING ASSIGNMENTS DURING 2008
  Spring
  ▷ MATH 685. — Directed Studies (total enrollment: 2)

• RESEARCH PROJECTS DURING 2008
  Federal
  ▷ (REN) Geometry of Banach Spaces and Operator Spaces, National Science Foundation
  ▷ Workshop in Analysis and Probability, National Science Foundation
• SERVICE DURING 2008

  College
  ▶ Committee/Panel: Faculty Advisory Council (Representative-at-Large)

  Department
  ▶ Service Position: Departmental of Mathematics (Mentor)
  ▶ Committee/Panel: Awards Committee (Member), Subcommittee P (Member), Teaching Committee (Chair)

• TEACHING ASSIGNMENTS DURING 2008

  Spring
  ▶ MATH 251. — Engineering Mathematics III (total enrollment: 89)
  ▶ MATH 467. — Modern Geometry (total enrollment: 25)

  Summer
  ▶ MATH 666. — Seminar in Geometry (total enrollment: 11)

  Fall
  ▶ MATH 636. — Topology I (total enrollment: 20)

• RESEARCH PROJECTS DURING 2008

  Federal
  ▶ Geometric Applications of Exterior Differential Systems, National Science Foundation
  ▶ (REN) Texas Geometry and Topology Conference, National Science Foundation
• SERVICE DURING 2008

National
▷ Editorial/Board: Journal of Functional Analysis (Referee: Journals)

Department
▷ Event: Mathematical Physics and Harmonic Analysis Seminar (Organizer)

• TEACHING ASSIGNMENTS DURING 2008

Spring
▷ MATH 220. — Fundamentals of Discrete Mathematics (total enrollment: 30)
▷ MATH 691. — Research (total enrollment: 1)

Summer
▷ MATH 152. — Engineering Mathematics II (total enrollment: 10)
▷ MATH 251. — Engineering Mathematics III (total enrollment: 12)
▷ MATH 691. — Research (total enrollment: 2)

Fall
▷ MATH 308. — Differential Equations (total enrollment: 56)
▷ MATH 617. — Theory of Functions of a Complex Variable I (total enrollment: 22)
▷ MATH 691. — Research (total enrollment: 1)

• RESEARCH PROJECTS DURING 2008

Federal
▷ Asymptotics of Analytic Integrals and the Beurling-Malliavin Theory, National Science Foundation
▷ Uniqueness and Convergence of Analytic Integrals in Harmonic and Spectral Analysis, National Science Foundation

• PRESENTATIONS DURING 2008

▷ “Workshop on Soliton Waves,” Oberwolfach, Germany, February, 2008. (Individual)
▷ “Operators on Spaces of Analytic Functions,” Luminy, France, April, 2008. (Individual)
▷ 16th Annual Analysis Meeting, Euler Institute, St. Petersburg, Russia, June, 2008. (Individual)
▷ California Institute of Technology, Pasadena, CA, October, 2008. (Individual)
▷ Université de Lille I, Lille, France, October, 2008. (Individual)
Rice University, Houston, TX, November, 2008. (Individual)

- **PUBLICATIONS DURING 2008**
• SERVICE DURING 2008

National

• TEACHING ASSIGNMENTS DURING 2008

Fall
▷ MATH 412(H) — Theory of Partial Differential Equations (total enrollment: 9)
▷ MATH 412. — Theory of Partial Differential Equations (total enrollment: 26)
▷ MATH 417. — Numerical Analysis I (total enrollment: 21)

• RESEARCH PROJECTS DURING 2008

Federal
▷ Proposal for Supporting the Organization of a Workshop on L1-based Nonlinear Approximation Techniques, Department of Defense
▷ Support of Stockpile Stewardship Program, Lawrence Livermore National Laboratory
▷ Approximation and Learning in High Dimensions, National Science Foundation
▷ L1-Based Approximation Techniques for PDEs, National Science Foundation
▷ Nonlinear Finite Element Approximation of First-Order PDE’s in L1, National Science Foundation

• PRESENTATIONS DURING 2008

▷ “Approximation Theory,” Ninth International Meeting, Úbeda, Spain, June, 2008.( Invited)
▷ “Terrain Data Reconstruction and Approximating PDEs via L1 Minimization,” Mathematics Department Colloquium, University of Arkansas, Fort Smith, AR, September, 2008.( Individual)
▷ “Terrain Data Reconstruction and Approximating PDEs via L1 Minimization,” Sam Houston State University, Huntsville, TX, October, 2008.( Individual)
▷ “Terrain Data Reconstruction and Approximating PDEs via L1 Minimization,” Tulane University, New Orleans, LA, October, 2008.( Individual)
• "Numerical Methods for PDEs," Georgia Institute of Technology, Atlanta, GA, November, 2008. (Individual)

• PUBLICATIONS DURING 2008
• SERVICE DURING 2008

National
  ▶ Editorial/Board: Differential Equations, An Introduction to Modern Methods and Applications (Reviewed)

Regional
  ▶ Event: Houston Regional Science and Engineering Fair (Judge)

• TEACHING ASSIGNMENTS DURING 2008

Spring
  ▶ MATH 308. — Differential Equations (total enrollment: 56)
  ▶ MATH 664. — Seminar in Applied Mathematics (total enrollment: 19)

Summer
  ▶ MATH 308. — Differential Equations (total enrollment: 54)

Fall
  ▶ MATH 308 — Differential Equations (total enrollment: 53)
  ▶ MATH 470. — Communications and Cryptography (total enrollment: 62)
• SERVICE DURING 2008

  International

  National

• TEACHING ASSIGNMENTS DURING 2008

  Spring
  ▶ MATH 151. — *Engineering Mathematics I* (total enrollment: 82)

  Fall
  ▶ MATH 623. — *Riemannian Geometry* (total enrollment: 8)

• RESEARCH PROJECTS DURING 2008

  Federal
  ▶ Analytic Geometry and Representation Theory, *National Science Foundation*

• PRESENTATIONS DURING 2008

  ▶ “Texas Geometry and Topology Conference,” Texas Tech University, Lubbock, TX, February, 2008. (Invited)
  ▶ University of Rochester Geometry and Analysis Seminar, Rochester, NY, September, 2008. (Invited)
• SERVICE DURING 2008

International
▷ Editorial/Board: National Science Foundation/CONICYT (Review: Proposals)

National
▷ Service Position: Sandia National Laboratories, Combustion Research Laboratory (Consultant)
▷ Editorial/Board: National Science Foundation (Panelist), Houston Journal of Mathematics (Editor), Journal of Complexity, Journal of Symbolic Computation (Referee: Journals)

Department
▷ Editorial/Board: Spanish Language (Examiner)
▷ Committee/Panel: Tenure Committee (Member)

• TEACHING ASSIGNMENTS DURING 2008

Spring
▷ MATH 171. — Analytic Geometry and Calculus (total enrollment: 26)
▷ MATH 691. — Research (total enrollment: 2)

Summer
▷ MATH 685. — Directed Studies (total enrollment: 2)
▷ MATH 691. — Research (total enrollment: 1)

Fall
▷ MATH 171. — Analytic Geometry and Calculus (total enrollment: 31)
▷ MATH 323 — Linear Algebra I (total enrollment: 1)
▷ MATH 691. — Research (total enrollment: 1)

• RESEARCH PROJECTS DURING 2008

Federal
▷ Graduate Assistance in Areas of National Need, Department of Education
▷ CAREER: Complexity, Reality, and Rationality in Large Non-linear Equation Solving, National Science Foundation, coworkers: A. Ibrahim (G), T. Kyriopolos (G), S. Sethuraman (G)

• PRESENTATIONS DURING 2008
▷ “On the Need for Randomization in Real Algorithmic Geometry,” University of Utah, Salt Lake City, UT, 2008. (Individual)

“Number-Theoretic Approach to the P vs. NP Problem II: Short Interval Estimates and Complex Roots,” Number Theory Seminar, Texas A&M University, College Station, TX, January, 2008.

“A Number-Theoretic Approach to the P vs. NP Problem I,” Number Theory Seminar, Texas A&M University, College Station, TX, January, 2008.

“Most Hard Equations are Easy,” Aggieland Saturday, February, 2008.

“Most Hard Equations are Easy,” Graduate Student Seminar, February, 2008.

“Sharper, High Probability Bounds for Real Fewnomial Zero Sets,” Bernoulli Center, EPFL, Lausanne, Switzerland, April, 2008.


“Undergraduate Course on Algorithmic Fewnomial Theory,” Institute for Advanced Study - Park City Mathematics Institute, Park City, UT, July, 2008.

“ABCs of Real Algebraic Geometry,” University of Utah, Salt Lake City, UT, November, 2008.

“Hilbert’s 10th Problem in Low Dimensions,” University of Utah, Salt Lake City, UT, November, 2008.

• SERVICE DURING 2008

National

Department
▷ Event: Algebra and Combinatorics Seminar (Participant), Math. Physics/Harmonic Analysis Seminar (Participant), Working Algebra Seminar (Participant)

• TEACHING ASSIGNMENTS DURING 2008

Spring
▷ MATH 308. — Differential Equations (total enrollment: 55)

Fall
▷ MATH 311. — Topics in Applied Mathematics I (total enrollment: 44)

• RESEARCH PROJECTS DURING 2008

Federal
▷ Algebraic Aspects of Topological Quantum Computing, Department of Defense

• PRESENTATIONS DURING 2008

▷ “Geometry Seminar,” University of Texas, Austin, TX, January, 2008. (Invited)
▷ “March Classical and Quantum Information Theory,” Santa Fe, NM, March, 2008. (Invited)
▷ “Number Theory Seminar,” University of Texas, Austin, TX, October, 2008. (Invited)

• PUBLICATIONS DURING 2008

• SERVICE DURING 2008

International
▶ Committee/Panel: Applied Inverse Problems Organizing Committee (Member), Executive Committee Inverse Problems International Association (Chair), Scientific Board, Radon Institute for Computational and Applied Mathematics (Member)

National
▶ Editorial/Board: The Panel (Author)
▶ Committee/Panel: Imaging and Inverse Problems (Editorial Board), Inverse Problems (Editorial Board)

• TEACHING ASSIGNMENTS DURING 2008

Spring
▶ MATH 409(H) — Advanced Calculus I (total enrollment: 3)
▶ MATH 409 — Advanced Calculus I (total enrollment: 18)

Fall
▶ MATH 489 — Special Topics in (total enrollment: 1)
▶ MATH 601 — Methods of Applied Mathematics I (total enrollment: 95)

• RESEARCH PROJECTS DURING 2008

Federal
▶ Reconstruction Algorithms for Inverse Obstacle Problems, National Science Foundation

• PRESENTATIONS DURING 2008

▶ Rice University, Houston, TX, February, 2008.( Individual)
▶ “Conference on Inverse Scattering,” Sestri Levante, Italy, May, 2008.( Invited)
▶ “Workshop on Inverse Problems,” Fudan University, Shanghai, China, June, 2008.( Individual)
▶ University of Tokyo, Tokyo, Japan, June, 2008.( Individual)
▶ University of Nice, Nice, France, July, 2008.( Individual)
▶ “Advances in Inverse Problems,” Banff, Canada, November, 2008.( Individual)

• PUBLICATIONS DURING 2008

HENRY K. SCHENCK

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• SERVICE DURING 2008

International
  ▶ Event: Surface Modeling and Syzygies, Oberwolfach (Organizer)
  ▶ Editorial/Board: European J. Combinatorics (Referee: Journals)

National
  ▶ Committee/Panel: American Mathematical Society Data Committee (Member)

Department
  ▶ Committee/Panel: Executive Committee (Member)

• TEACHING ASSIGNMENTS DURING 2008

Spring
  ▶ MATH 691. — Research (total enrollment: 1)

Summer
  ▶ MATH 691. — Research (total enrollment: 1)

• RESEARCH PROJECTS DURING 2008

Federal
  ▶ Applied Commutative Algebra, Department of Defense
  ▶ Surface Modeling Approximation Theory and Coding Theory, National Science Foundation

Resigned 09/02/2008.
• ADDITIONAL UNIVERSITY TITLES HELD DURING 2008
  ▶ Associate Dean for Assessment and PreK-12 Education, Office of Assessment and PreK-12 Education, College of Science, [2006]
  ▶ Director, ITS Center for Teaching and Learning, Information Technology in Science Center for Teaching and Learning (ITS), College of Science, [2000]

• SERVICE DURING 2008

  International
  ▶ Committee/Panel: Discussion Group 4: Curricular Issues for the 11th International Congress on Mathematical Education (Co-Chair)

  National
  ▶ Editorial/Board: School Science and Mathematics Journal (Associate Editor)
  ▶ Committee/Panel: National Center for Research on Evaluation, Standards, and Student Testing (Member), NCTM National Mathematics Advisory Panel Implementation Team (Member)

  State
  ▶ Committee/Panel: Texas Response to Curriculum Focal Points Director (Director)

  University
  ▶ Committee/Panel: Center for Teaching Excellence Faculty Advisory Board (Member), College of Education Selection Committee for Mathematics Education Position (Member), NSF-funded Policy Research Initiative in Science Education (Chair), Quality Enhancement Plan Executive Committee (Member), Sigma Xi Education Committees (Member), University Council on Teacher Education (Member)

  College
  ▶ Event: Regional Junior Science Bowl (Judge)
  ▶ Committee/Panel: College Quality Enhancement Plan Council (Chair), Executive Committee (Member), Institutional Effectiveness Working Group (Chair), Science Ed Policy Position Search Committee (Chair), Technology-Mediated Instruction Committee (Member)

• TEACHING ASSIGNMENTS DURING 2008

  Fall
  ▶ MATH 367. — Basic Concepts of Geometry (total enrollment: 50)

• RESEARCH PROJECTS DURING 2008

  Federal
Center for the Application of Information Technology in the Teaching and Learning of Science, National Science Foundation, coworkers: G. Nickles (P), D. Bozeman (G), L. Brooks (G), J. Cryer (G), C. Force (G), L. Forsyth (G), A. Harbaugh (G), S. Hilding-Kronforst (G), C. Johnson (G), S. Metoyer (G), H. Miller (G), C. Peterson (G), C. Romero (G), J. Scallen (G), K. Sell (G), C. Shimek (G)

Engaging Middle School Students in Student-Directed Inquiry Through Virtual Environments for Learning, National Science Foundation

Noyce Scholarship (Supplement to ITS Center Grant), National Science Foundation

Supplement to the ITS Center, National Science Foundation

Track 1, GK-12: Building Understanding Through Research Partnerships and IT, National Science Foundation

• PRESENTATIONS DURING 2008

“NCTM’s Curriculum Focal Points,” National Council of Teachers of Mathematics Annual Meeting and Exposition, Salt Lake City, UT, April, 2008. (Individual)


“Let’s Focus to Improve Mathematics Teaching and Learning,” National Council of Teachers of Mathematics (NCTM) Regional Conference and Exposition, Oklahoma City, OK, October, 2008. (Individual)

• PUBLICATIONS DURING 2008

• SERVICE DURING 2008

National
▷ Event: U.S. Department of Energy National Middle School Science Bowl (Mathematics Question Writer and Reviewer), U.S. Department of Energy National Science Bowl (Mathematics Question Writer and Reviewer), We’ve Got Your Number, National Science Olympiad (Coordinator)
▷ Advisory Board: Advisory Committee to the Committee on the American Mathematics Competitions (Member), Advisory Committee, U.S. Department of Energy National Middle School Science Bowl (Member), Advisory Committee, U.S. Department of Energy National Science Bowl (Member)
▷ Committee/Panel: American Mathematics Competition (Panel)

State
▷ Advisory Board: Texas Academy of Science Board of Directors (Member)

College
▷ Event: Texas A&M University Regional Junior Science Bowl (Regional Coordinator), Texas A&M University Regional Science Bowl (Regional Coordinator), Texas Junior Academy of Science (State Director and Judge), Texas Junior Science and Humanities Symposium (Committee Member and Judge), Texas Science Olympiad (Committee Member and Official), U.S. Department of Energy National Science Bowl (Moderator and Official)

Department
▷ Service Position: Future Aggie Mathematics Educators (Faculty Advisor), Mathematics Teaching Field Advisor for Secondary Students (Advisor)

• TEACHING ASSIGNMENTS DURING 2008

Spring
▷ MATH 366. — Structure of Mathematics II (total enrollment: 21)
▷ MATH 376. — Intermediate Abstract Algebra (total enrollment: 3)
▷ MATH 403. — Mathematics and Technology (total enrollment: 12)

Summer
▷ MATH 366. — Structure of Mathematics II (total enrollment: 12)

Fall
▷ MATH 365. — Structure of Mathematics I (total enrollment: 17)
▷ MATH 366. — Structure of Mathematics II (total enrollment: 15)
▷ MATH 375. — Intermediate Real Analysis (total enrollment: 2)
▷ MATH 403. — Mathematics and Technology (total enrollment: 15)
• PRESENTATIONS DURING 2008
  ▶ “Some Tips for Evaluating Student Work on The Geometer’s Sketchpad,” Texas Section MAA, Stephenville, TX, April, 2008. (Individual)
  ▶ “Problem-Solving with The Geometer’s Sketchpad,” Conference for the Advancement of Mathematics Teaching, Dallas, TX, June, 2008. (Individual)
• SERVICE DURING 2008
  
  International
  ▷ Editorial/Board: *Studia Mathematica* (Referee: Journals)

  National

  College
  ▷ Committee/Panel: Research Advisory Committee (Member)

  Department
  ▷ Committee/Panel: Subcommittee T&P (Member), Subcommittee T&P (Chair)

• TEACHING ASSIGNMENTS DURING 2008
  
  Spring
  ▷ MATH 436(H) — *Introduction to Topology* (total enrollment: 3)
  ▷ MATH 436. — *Introduction to Topology* (total enrollment: 5)
  ▷ MATH 691. — *Research* (total enrollment: 1)

  Summer
  ▷ MATH 691. — *Research* (total enrollment: 2)

  Fall
  ▷ MATH 409. — *Advanced Calculus I* (total enrollment: 11)
  ▷ MATH 691. — *Research* (total enrollment: 2)

• RESEARCH PROJECTS DURING 2008
  
  Federal
  ▷ Banach Spaces: Theory and Application, *National Science Foundation*

• PRESENTATIONS DURING 2008
  
  ▷ University of Denver, Denver, CO, January, 2008.( Individual)
  ▷ Spring School in Modern Analysis, Department of Mathematics, Czech Academy of Sciences, Prague, Czech Republic, April, 2008.( Invited)

University of Leads, United Kingdom, July, 2008. (Individual)


- **PUBLICATIONS DURING 2008**


• SERVICE DURING 2008
  Department
  ▶ Service Position: Undergraduate Students (Mentor)
  ▶ Committee/Panel: Awards Committee (Member), Library Committee (Member), Math 151 Course (Co-Coo-ordinator), Speakers Committee (Member)

• TEACHING ASSIGNMENTS DURING 2008
  Spring
  ▶ MATH 409. — Advanced Calculus I (total enrollment: 21)
  ▶ MATH 663. — Seminar in Analysis (total enrollment: 8)
  Fall
  ▶ MATH 171. — Analytic Geometry and Calculus (total enrollment: 13)
  ▶ MATH 695. — Frontiers in Mathematical Research (total enrollment: 2)

• PUBLICATIONS DURING 2008
• SERVICE DURING 2008
  Department
  ▷ Committee/Panel: Undergraduate Programs Committee (Member)

• TEACHING ASSIGNMENTS DURING 2008
  Spring
  ▷ MATH 221. — Several Variable Calculus (total enrollment: 34)

Retired 05/31/2008.
• SERVICE DURING 2008

International

National
▷ Service Position: External Promotion and Tenure Cases (Panel)

Department
▷ Committee/Panel: Committee T (Chair), Frontiers Committee (Chair), Graduate Committee (Member)

• TEACHING ASSIGNMENTS DURING 2008

Spring
▷ MATH 222. — Linear Algebra (total enrollment: 30)
▷ MATH 447. — Topics in Analysis (total enrollment: 15)
▷ MATH 691. — Research (total enrollment: 1)

Summer
▷ MATH 308. — Differential Equations (total enrollment: 35)

Fall
▷ MATH 691. — Research (total enrollment: 1)

• RESEARCH PROJECTS DURING 2008

Federal
▷ Studies in Operator Algebras, National Science Foundation, coworkers: J. Cameron (G), K. Mukherjee (G), A. Wiggins (G)

• PRESENTATIONS DURING 2008

• PUBLICATIONS DURING 2008

• SERVICE DURING 2008

International
▷ Service Position: Banff International Research Station, International Committee for Museum Security (Reviewer)
▷ Event: Real and Tropical Geometry (Co-Organizer), Semester on Real Algebraic and Tropical Geometry at the Centre Bernoulli (Co-Organizer)
▷ Committee/Panel: Austrian Science Foundation Panel (Member)

National

State
▷ Committee/Panel: CombinaTexas 2008 Steering Committee (Member)

Regional
▷ Event: Several Brazos Valley Mathematics Teacher’s Circle Meetings (Participant)

University
▷ Event: Summer Honors Invitational Program-To Infinity and Beyond (Speaker)

Department
▷ Event: Bounds and Enumeration in Real Algebraic Geometry Workshop (Co-Organizer)
▷ Committee/Panel: Executive Committee (Member), Outreach Committee (Member)

• TEACHING ASSIGNMENTS DURING 2008

Spring
▷ MATH 685. — Directed Studies (total enrollment: 3)

Summer
▷ MATH 685. — Directed Studies (total enrollment: 3)
Fall

- MATH 691. — Research (total enrollment: 3)

- MATH 151.(H) — Engineering Mathematics I (total enrollment: 51)
- MATH 221. — Several Variable Calculus (total enrollment: 25)
- MATH 685. — Directed Studies (total enrollment: 1)
- MATH 691. — Research (total enrollment: 2)

• RESEARCH PROJECTS DURING 2008

Federal

- Applicable Algebraic Geometry: Real Solutions, Applications, and Combinatorics, National Science Foundation
- US Participation in Workshop Enumeration and Bounds in Real Algebraic Geometry, National Science Foundation

State

- Applications of Algebraic Geometry to Algebraic Statistics and Geometric Modeling, Texas Higher Education Coordinating Board

• PRESENTATIONS DURING 2008

- “Introductory Workshop, Semester on Real and Tropical Algebraic Geometry,” CIB, EPFL, Lausanne, Switzerland, January, 2008. (Individual)
- Texas A&M University, College Station, TX, January, 2008. (Individual)
- Center for Applied Mathematics, University of Notre Dame, Notre Dame, IN, February, 2008. (Individual)
- Michigan State University, East Lansing MI, February, 2008. (Individual)
- Trinity University, San Antonio, TX, February, 2008. (Individual)
- San Francisco State University, San Francisco, CA, March, 2008. (Individual)
- Université de Savoie, Chambéry, France, April, 2008. (Individual)
- Texas A&M University, College Station, TX, September, 2008. (Individual)
- AMS Sectional Meeting, Vancouver, BC Canada, October, 2008. (Individual)
- University of Vienna, Vienna, Austria, October, 2008. (Individual)
- University of Vienna, Vienna, Austria, October, 2008. (Individual)
- Texas A&M University, College Station, TX, December, 2008. (Individual)

• PUBLICATIONS DURING 2008


• **ADDITIONAL UNIVERSITY TITLES HELD DURING 2008**
  ▷ Undergraduate Advisor, Mathematics Undergraduate Advising Office, Mathematics, [1990]

• **SERVICE DURING 2008**
  Regional
  ▷ Event: Annual High School Mathematics Contest (Supervisor)

  University
  ▷ Committee/Panel: Tenure Mediation (Elected Member)

  Department
  ▷ Service Position: Maple (Ambassador)
  ▷ Committee/Panel: Undergraduate Programs Committee (Member)

• **TEACHING ASSIGNMENTS DURING 2008**

  **Spring**
  ▷ MATH 170. — **Freshman Mathematics Laboratory** (total enrollment: 45)
  ▷ MATH 220. — **Fundamentals of Discrete Mathematics** (total enrollment: 36)
  ▷ MATH 222.(H) — **Linear Algebra** (total enrollment: 8)
  ▷ MATH 285. — **Directed Studies** (total enrollment: 11)

  **Fall**
  ▷ MATH 170. — **Freshman Mathematics Laboratory** (total enrollment: 68)
  ▷ MATH 220. — **Fundamentals of Discrete Mathematics** (total enrollment: 56)
PETER F. STILLER

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• ADDITIONAL UNIVERSITY TITLES HELD DURING 2008
  ➢ Associate Director, Institute for Scientific Computation, Vice President for Research, [1999]
  ➢ Professor (J), Computer Science, [1993]

• SERVICE DURING 2008
  National
  ➢ Editorial/Board: NSF Division of Mathematical Sciences (Review: Proposals)
  Department
  ➢ Committee/Panel: Post-Doctoral Hiring Committee (Member)

• TEACHING ASSIGNMENTS DURING 2008
  Spring
  ➢ MATH 433. — Applied Algebra (total enrollment: 20)
  ➢ MATH 691. — Research (total enrollment: 1)
  Summer
  ➢ MATH 691. — Research (total enrollment: 1)
  Fall
  ➢ MATH 171. — Analytic Geometry and Calculus (total enrollment: 37)
  ➢ MATH 311. — Topics in Applied Mathematics I (total enrollment: 20)
  ➢ MATH 691. — Research (total enrollment: 1)

• RESEARCH PROJECTS DURING 2008
  Federal
  ➢ Geometric Methods for ATR Shape Analysis, Object/Image Metrics, Shape Reconstruction, and Shape Statistics, Air Force Office of Scientific Research
  ➢ Development of Spatially Immersive Visualization Facilities, National Science Foundation

• PRESENTATIONS DURING 2008
  ➢ “ATR Center Summer Workshop,” Beavercreek, OH, August, 2008. (Invited)
• PUBLICATIONS DURING 2008
• SERVICE DURING 2008

International
▷ Editorial/Board: Proceedings Several Complex Variables and Connections with PDE’s (Member)

National
▷ Committee/Panel: Scientific Committee (Member)

College
▷ Committee/Panel: Faculty Advisory Council (Elected Member)

Department
▷ Committee/Panel: Awards Committee (Member), Executive Committee (Member)

• TEACHING ASSIGNMENTS DURING 2008

Spring
▷ MATH 151. — Engineering Mathematics I (total enrollment: 74)
▷ MATH 618. — Theory of Functions of a Complex Variable II (total enrollment: 14)
▷ MATH 691. — Research (total enrollment: 1)

Summer
▷ MATH 685. — Directed Studies (total enrollment: 1)

Fall
▷ MATH 221. — Several Variable Calculus (total enrollment: 30)

• RESEARCH PROJECTS DURING 2008

Federal
▷ (REN) Research and Education in Several Complex Variables, National Science Foundation
▷ Research and Education in Several Complex Variables, National Science Foundation

• PRESENTATIONS DURING 2008
▷ “Special Session on Harmonic Analysis and PDEs in Real and Complex Domains,” Louisiana State University, Baton Rouge, LA, March, 2008. (Invited)
“Analysis and Geometry of Several Complex Variables,” Institute of Mathematics of the Romanian Academy, Bucharest, Romania, June, 2008. (Invited)

“CR Geometry, PDEs, and Invariant Theory,” Prague, Czech Republic, June, 2008. (Invited)


“Several Complex Variables and Its Connections with PDEs and Geometry,” Fribourg, Switzerland, July, 2008. (Invited)

• PUBLICATIONS DURING 2008


• SERVICE DURING 2008

  International
  ▶ Event: Self-Similarity and Branching in Group Theory (Organizer)

  National
  ▶ Event: Joint AMS-SMB Special Session on Group Theory (Organizer)
  ▶ Editorial/Board: *AMS Math Reviews* (Reviewer), *Groups, Geometry, and Dynamics*, *Mathematische Zeitschrift* (Referee: Journals)
  ▶ Committee/Panel: MAA Advisory Panel on American Mathematical Competitions (Member), MAA Sub-Committee on USA Mathematics Olympiad (Member)

  Department
  ▶ Event: Groups and Dynamics Seminar (Organizer)

• TEACHING ASSIGNMENTS DURING 2008

  Spring
  ▶ MATH 416(H) — Modern Algebra II (total enrollment: 5)
  ▶ MATH 416. — Modern Algebra II (total enrollment: 6)

  Summer
  ▶ MATH 308. — Differential Equations (total enrollment: 47)
  ▶ MATH 685. — Directed Studies (total enrollment: 1)

  Fall
  ▶ MATH 311. — Topics in Applied Mathematics I (total enrollment: 22)
  ▶ MATH 470. — Communications and Cryptography (total enrollment: 47)

• RESEARCH PROJECTS DURING 2008

  Federal
  ▶ Algebraic, Combinatorial, Spectral, and Algorithmic Properties of Groups Generated by Finite Automata, *National Science Foundation*
  ▶ Finiteness Properties of Groups Acting on Rooted Trees, *National Science Foundation*

• PRESENTATIONS DURING 2008

  ▶ Conference Honoring Blagoj Popov’s 85th birthday, Ohrid, Macedonia, September, 2008. (Individual)
  ▶ “Discrete Structures in Conformal Dynamics and Geometry,” AMS Special Session, Bloomington IN, April, 2008. (Individual)
• PUBLICATIONS DURING 2008
• **SERVICE DURING 2008**

  **International**

  **National**

  **Department**
  ▶ Committee/Panel: Teaching Committee (Member)

• **TEACHING ASSIGNMENTS DURING 2008**

  **Spring**
  ▶ MATH 308. — **Differential Equations** (total enrollment: 40)

  **Fall**
  ▶ MATH 308. — **Differential Equations** (total enrollment: 83)

• **PRESENTATIONS DURING 2008**

  ▶ “Seventh AIMS International Conference on Dynamical Systems and Differential Equations,” University of Texas, Arlington, TX, May, 2008. (Individual)
• SERVICE DURING 2008

International
▷ Event: Scientific Committee of the Journées Arithmétiques (Co-Organizer)
▷ Editorial/Board: Inventiones, J fur die Reine und Angew Math, Israel J of Mathematics, Intl. J. of Number Theory (Referee: Journals), International Journal of Number Theory (Editor)

National

University
▷ Event: Number Theory Seminar (Co-Organizer), Number Theory Seminar (Co-Founder)

• TEACHING ASSIGNMENTS DURING 2008

Spring
▷ MATH 304. — Linear Algebra (total enrollment: 75)

Fall
▷ MATH 152. — Engineering Mathematics II (total enrollment: 200)

• RESEARCH PROJECTS DURING 2008

Federal
▷ Transcendence on Varieties in Families, National Science Foundation

• PRESENTATIONS DURING 2008

▷ “Distinguished Women in Mathematics Colloquium,” University of Texas, Austin, TX, February, 2008. (Invited)
▷ Arizona Winter School, March, 2008. (Invited)

• PUBLICATIONS DURING 2008

• SERVICE DURING 2008

National

University
▷ Committee/Panel: Faculty Senate (Faculty Senator - 03)

College
▷ Committee/Panel: Undergraduate Curriculum Committee (Member)

Department
▷ Service Position: Department of Mathematics (Ombudsman)
▷ Event: MathCounts Contest (Volunteer)
▷ Committee/Panel: Election Committee (Chair), Faculty Senate Executive Committee (Member), Teaching Committee (Member)

• TEACHING ASSIGNMENTS DURING 2008

Spring
▷ MATH 410. — *Advanced Calculus II* (total enrollment: 15)

Fall
▷ MATH 251. — *Engineering Mathematics III* (total enrollment: 39)
• SERVICE DURING 2008
  
  International
  ▶ Editorial/Board: Geometriae Dedicata (Referee: Journals)

  National
  ▶ Editorial/Board: Journal of Modern Dynamics (Referee: Journals)

  Department
  ▶ Event: Frontiers in Mathematics Program (Host)

• TEACHING ASSIGNMENTS DURING 2008

  Spring
  ▶ MATH 311. — Topics in Applied Mathematics I (total enrollment: 22)

  Fall
  ▶ MATH 304. — Linear Algebra (total enrollment: 49)
  ▶ MATH 685. — Directed Studies (total enrollment: 1)

• RESEARCH PROJECTS DURING 2008

  Federal
  ▶ Periodic Orbits of Billiards and Closed Geodesics on Flat Surfaces, National Science Foundation

• PRESENTATIONS DURING 2008

  ▶ “Isospectrality via Transplantation: New Examples with Mixed Dirichlet-Neumann Boundary Conditions,” Texas A&M University, College Station, TX, September, 2008. (Individual)

  ▶ “Polygonal Billiards and Flat Surfaces,” Texas A&M University, College Station, TX, September, 2008. (Individual)

  ▶ “Free Groups and Free Products as Self-Similar Groups,” Self-Similarity and Branching in Group Theory, Banff, Canada, October, 2008. (Individual)

• PUBLICATIONS DURING 2008

• ADDITIONAL UNIVERSITY TITLES HELD DURING 2008
  ▷ Member, Interdisciplinary Faculty, Computational Nanoscience and Materials - IGERT, [2006]
  ▷ Member, Interdisciplinary Faculty, Materials Science and Engineering, [2006]

• SERVICE DURING 2008

  International

  National

  University
  ▷ Committee/Panel: ABCS Steering Committee (Member), External Advisory Board of the Army Research Lab’s Advanced Materials and Technologies for Weapons Detection and Blast Mitigation Project Center at the University of Nebraska at Lincoln (Member)

  Department
  ▷ Service Position: Undergraduate Mathematical Biology Majors (Advisor)
  ▷ Event: Applied Mathematics Seminar (Organizer), IAMCS-KAUST Seminar (Organizer)
  ▷ Committee/Panel: Graduate Programs Committee (Member)

  Interdisciplinary/Intercollegiate
  ▷ Committee/Panel: Admissions and Advising Committee for Graduate Program (Member), Ecological and Evolutionary Biology (Member)

• TEACHING ASSIGNMENTS DURING 2008

  Spring
  ▷ BIOL 285 — Directed Studies (total enrollment: 18)
  ▷ MATH 285. — Directed Studies (total enrollment: 2)
MATH 491.(H) — **Research** (total enrollment: 1)

MATH 604. — **Mathematical Foundations of Continuum Mechanics** (total enrollment: 11)

MATH 691. — **Research** (total enrollment: 3)

**Summer**

MATH 685. — **Directed Studies** (total enrollment: 7)

MATH 691. — **Research** (total enrollment: 1)

**Fall**

BIOL 285. — **Directed Studies** (total enrollment: 12)

MATH 285. — **Directed Studies** (total enrollment: 8)

MATH 469 — **Introduction to Mathematical Biology** (total enrollment: 13)

MATH 691. — **Research** (total enrollment: 1)

- **RESEARCH PROJECTS DURING 2008**

**Federal**

- (REN) Modeling Interfaces Through an Extension of Continuum Mechanics to the Nanoscale with Application to Fracture, Debonding, and Composites, *Air Force Office of Scientific Research*

- IGERT: New Mathematical Tools for Next Generation Materials, *National Science Foundation*

- REU Site: Undergraduate Research in Mathematical Sciences and Its Applications, *National Science Foundation*

- UBM Integrated Undergraduate Research Experiences in Biological and Mathematical Sciences, *National Science Foundation*

**Other**

- An Analysis of the Dynamic, Transient Propagation of a Mode 1 Crack-Tip Cohesive Zone, *University of Nebraska*

- **PRESENTATIONS DURING 2008**


- University of Glasgow, Mathematical Biology Seminar, Scotland, United Kingdom, August, 2008. (Individual)

- University of Strathclyde, Mathematical Biology Seminar, Scotland, United Kingdom, August, 2008. (Individual)

- PUBLICATIONS DURING 2008
JOSEPH D. WARD

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• SERVICE DURING 2008

National

Department
▷ Committee/Panel: Executive Committee (Member)

• TEACHING ASSIGNMENTS DURING 2008

Spring
▷ MATH 171. — Analytic Geometry and Calculus (total enrollment: 30)
▷ MATH 172 — Calculus (total enrollment: 1)
▷ MATH 414. — Fourier Series and Wavelets (total enrollment: 26)

Summer
▷ MATH 685. — Directed Studies (total enrollment: 1)

Fall
▷ MATH 641. — Analysis for Applications I (total enrollment: 23)

• RESEARCH PROJECTS DURING 2008

Federal
▷ Analysis and Synthesis of Scattered Data on Surfaces via Radial and Related Basis Functions, National Science Foundation
▷ Approximation and Learning in High Dimensions, National Science Foundation
▷ (REN) New Approaches to Scattered Data Analysis via Radial Related Basis Functions and Tight Spherical Frames, National Science Foundation

• PRESENTATIONS DURING 2008

▷ “Surface Divergence-Free RBF Interpolants on Spheres,” 7th International Conference on Multivariate Approximation, Dortmund, Germany, September, 2008.( Individual)
▷ “Surface Divergence-Free RBF Interpolants on Spheres,” Constructive Function Theory, Sam Houston State University, Huntsville, TX, October, 2008.( Individual)

• PUBLICATIONS DURING 2008

SARAH WITHERSPOON
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MATH-Algebra sjw@math.tamu.edu

• SERVICE DURING 2008

International
▷ Editorial/Board: Mathematical Proceedings of the Royal Irish Academy, International Mathematics Research Notices (Referee: Journals)

National
▷ Committee/Panel: AMS Committee on Education (Member), AMS Council (Elected Member), AMS-MAA-SIAM Committee on Employment Opportunities (Member), AMS-MAA-SIAM Committee on Employment Opportunities (Chair)

Regional
▷ Event: Lectures to Middle School Students (Lecturer)

Department
▷ Event: Working Algebra Seminar (Organizer)

• TEACHING ASSIGNMENTS DURING 2008

Spring
▷ MATH 172. — Calculus (total enrollment: 34)
▷ MATH 654. — Algebra II (total enrollment: 16)

Summer
▷ MATH 685. — Directed Studies (total enrollment: 1)

Fall
▷ MATH 171. — Analytic Geometry and Calculus (total enrollment: 19)

• RESEARCH PROJECTS DURING 2008

Federal
▷ Collaborative Research: Cohomology, Deformations, and Invariants, National Science Foundation
▷ Cohomology, Deformations, and Representations of Algrebras, National Security Agency

State
▷ Graded Hecke Algebras and Deformations, Texas Higher Education Coordinating Board

• PRESENTATIONS DURING 2008

528 2008 Mathematics annual report
“Conference for Georgia Benkart,” University Of California, San Diego, CA, February, 2008. (Invited)

“AMS Special Session on Hopf Algebras and Quantum Groups,” Claremont, CA, May, 2008. (Invited)

“Algebra Seminar,” University of South Alabama, Mobile, AL, September, 2008. (Individual)

“Working Algebra Seminar,” Texas A&M University, College Station, TX, September, 2008. (Individual)

“Algebra and Combinatorics Seminar,” Texas A&M University, College Station, TX, November, 2008. (Individual)

“Working Algebra Seminar,” Texas A&M University, College Station, TX, November, 2008. (Individual)


**PUBLICATIONS DURING 2008**


• SERVICE DURING 2008

International


National


▷ Committee/Panel: American Mathematical Society Council (Member), AMS Committee on Conference and Meeting (Member), AMS to the Board of Directors of Canadian Mathematical Society (Representative)

State

▷ Event: CombinaTexas Conference, University of Texas at El Paso (Organizer)

Department

▷ Committee/Panel: Executive Committee (Member), Powell Chair Searching Committee (Member), Promotion Subcommittee (Member)

• TEACHING ASSIGNMENTS DURING 2008

Spring

▷ MATH 302 — *Discrete Mathematics* (total enrollment: 1)

▷ MATH 431(H) — *Structures and Methods of Combinatorics* (total enrollment: 2)

• RESEARCH PROJECTS DURING 2008

Federal

▷ CombinaTexas: A Combinatorics Conference for the South-Central U.S., *Department of Defense*

▷ Combinatorial Patterns and Structures, *National Science Foundation*

• PRESENTATIONS DURING 2008


▷ “Crossings and Nestings of Two Edges in Set Partitions,” AMS Western Section Spring Meeting, Claremont, CA, May, 2008. (Invited)


**PUBLICATIONS DURING 2008**


PHILIP B. YASSKIN

ASSOCIATE PROFESSOR
MATH-Mathematical Physics

AWARDS DURING 2008

International
▷ 2008 ICTCM Award, Pearson Education

SERVICE DURING 2008

National
▷ Committee/Panel: MAA Student Chapter (Faculty Advisor)

University
▷ Service Position: Pi Mu Epsilon (Faculty Advisor)
▷ Event: Maple Adoption Program, (Coordinator)

College
▷ Event: Texas A&M University Regional Junior Science Bowl (Volunteer), Texas A&M University Regional Science Bowl (Volunteer)

Department
▷ Event: High School Math Contest - Power Team Grading (Organizer), Math Awareness Month: Math Mini Fair (Organizer), PME Career Fair Panel Discussion (Organizer), Science Matters at Howdy (Organizer), Summer Honors Invitational Program (Presenter), Third Annual Integral Bee (Organizer)
▷ Committee/Panel: Department Outreach Committee (Member), Math Awareness Month Organizing Committee (Member), Sigma Xi Committee (Member)

TEACHING ASSIGNMENTS DURING 2008

Spring
▷ MATH 251 — Engineering Mathematics III (total enrollment: 89)
▷ MATH 253(H) — Engineering Mathematics III (total enrollment: 12)
▷ MATH 253 — Engineering Mathematics III (total enrollment: 49)

Fall
▷ MATH 152(H) — Engineering Mathematics II (total enrollment: 37)
▷ MATH 253(H) — Engineering Mathematics III (total enrollment: 4)
▷ MATH 253 — Engineering Mathematics III (total enrollment: 64)

RESEARCH PROJECTS DURING 2008

Federal
▷ Collaborative Proposal: Maplets for Calculus, National Science Foundation
▷ (REN) TRACK1, GK-12: Fellows Integrate Science/Math In Rural Middle Schools, National Science Foundation
• PRESENTATIONS DURING 2008
  ▶ “Maplets For Calculus: Improving Student Skills And Understanding In Calculus,” 20th International Conference on Technology in Collegiate Mathematics, San Antonio, TX, March, 2008. (Individual)
  ▶ “Mathematics Education,” Texas A&M University, College Station, TX, July, 2008. (Individual)
  ▶ “SEE-Math - Summer Educational Enrichment at Texas A&M for Middle School Students,” Conference for the Advancement of Math Teaching, Dallas, TX, July, 2008. (Individual)
  ▶ “Conway’s Rational Tangles,” Brazos Valley Math Teachers’ Circle, College Station, TX, September, 2008. (Individual)

• PUBLICATIONS DURING 2008
• SERVICE DURING 2008

National

Department
▷ Event: Number Theory Seminar (Participant), Working Seminar in Number Theory (Organizer)

• TEACHING ASSIGNMENTS DURING 2008

Spring
▷ MATH 662. — Seminar in Algebra (total enrollment: 5)

Fall
▷ MATH 415. — Modern Algebra I (total enrollment: 24)

• RESEARCH PROJECTS DURING 2008

Federal
▷ Mean Values of L-functions, National Science Foundation

• PRESENTATIONS DURING 2008
▷ 22nd Annual Automorphic Forms Workshop, Texas A&M University, College Station, TX, March, 2008. (Invited)
▷ “Number Theory Seminar,” University of Texas, Austin, TX, December, 2008. (Invited)
• SERVICE DURING 2008

   National

• TEACHING ASSIGNMENTS DURING 2008

   Fall
   ▶ MATH 409. — **Advanced Calculus I** (total enrollment: 20)

• PRESENTATIONS DURING 2008

   ▶ “Differential Equations and Topology,” Centennial Anniversary of L. S. Pontryagin, Moscow State University, Russia, June, 2008. (Individual)

_Hired 08/16/2008._
• SERVICE DURING 2008

National
 ▷ Editorial/Board: Various Journals (Referee: Journals)

University
 ▷ Service Position: Texas A&M University Chinese Student and Scholar Association (Advisor)

• TEACHING ASSIGNMENTS DURING 2008

Spring
 ▷ MATH 652. — Optimization II (total enrollment: 5)
 ▷ MATH 691. — Research (total enrollment: 3)

Summer
 ▷ MATH 411. — Mathematical Probability (total enrollment: 22)
 ▷ MATH 691. — Research (total enrollment: 2)

Fall
 ▷ MATH 251. — Engineering Mathematics III (total enrollment: 186)
 ▷ MATH 691. — Research (total enrollment: 1)

• RESEARCH PROJECTS DURING 2008

Federal
 ▷ Computational Theory and Methods for Finding Multiple Solutions to Differential Systems, National Science Foundation
 ▷ US-China Collaboration in Mathematical Research Program, National Science Foundation

• PRESENTATIONS DURING 2008


• PUBLICATIONS DURING 2008


• ADDITIONAL UNIVERSITY TITLES HELD DURING 2008
  ▶ Professor (J), Statistics, [1988]

• SERVICE DURING 2008
  International
  ▶ Editorial/Board: Bernoulli, Journal of the Australian Mathematical Society (Referee: Journals)

  National

  Department
  ▶ Event: Workshop in Linear Analysis and Probability (Co-Organizer)

• TEACHING ASSIGNMENTS DURING 2008
  Spring
  ▶ MATH 311. — Topics in Applied Mathematics I (total enrollment: 42)
  ▶ MATH 485(H) — Directed Studies (total enrollment: 1)
  ▶ MATH 485. — Directed Studies (total enrollment: 1)

  Summer
  ▶ MATH 423. — Linear Algebra II (total enrollment: 11)
  ▶ MATH 691. — Research (total enrollment: 1)

  Fall
  ▶ MATH 220. — Fundamentals of Discrete Mathematics (total enrollment: 11)
  ▶ MATH 409.(H) — Advanced Calculus I (total enrollment: 14)

• RESEARCH PROJECTS DURING 2008
  Federal
  ▶ Inequalities and Limit Theorems in Probability with Applications, Department of Defense
  ▶ Graduate Assistance in Areas of National Need, Department of Education
  ▶ Approximation and Learning in High Dimensions, National Science Foundation
  ▶ Workshop in Analysis and Probability, National Science Foundation
  ▶ Inequalities and Limit Theorems in Probability with Applications, National Security Agency
• PRESENTATIONS DURING 2008
  ▶ “The Gaussian Correlation Conjecture,” University of Wisconsin, Madison, WI, April, 2008. (Individual)

• PUBLICATIONS DURING 2008
7. Research Activity, 2008

This section contains information on all funded research activity for the calendar year 2008. Information was initially reported by faculty and verified whenever possible through the granting agency. Because of calculations and rounding there is a small margin of error.

Information reported by faculty:

▷ Title
▷ Granting Agency
▷ PIs, Co-PIs, and co-workers (internal/external)
▷ Total Funding
▷ Indirect Costs
▷ Start & End Dates

Calendar year calculations:

▷ Total - Indirect = Direct
▷ # Days Total Grant = End Date - Start Date
▷ Daily Grant Award = Total Funding Reported / # Days Total Grant
▷ Grant Award for 2008 = # Days 2008 × Daily Grant Award
7.1 Summary of Research Support, 2008

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- **Subtotal: Department of Education**
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- **Department of Energy**
  - **Total: 118,195**

- **Lawrence Livermore National Laboratory**
  - **Total: 83,564**

- **National Institutes of Health**
  - **Total: 543**
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* Subtotal: National Security Agency 22,329 9,551 31,880

* Subtotal: Industrial/Corporate Agencies 34,808 16,188 50,996

* Subtotal: International Agencies 3,333 0 3,333

**National Security Agency**

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* Subtotal: National Security Agency 22,329 9,551 31,880

* Subtotal: Industrial/Corporate Agencies 34,808 16,188 50,996

**International Agencies**

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* Subtotal: Ministry of Education and Science 3,333 0 3,333

* Qatar Foundation

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SEC. 7. RESEARCH ACTIVITY 551
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**University of South Carolina**

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**Alfred P. Sloan Foundation**

**California Institute of Technology**

**U.S. Israel Binational Science Foundation**
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SEC. 7. RESEARCH ACTIVITY 553
### 7.2 Summary of Individual Support, 2008

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554 2008 MATHEMATICS ANNUAL REPORT
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- **Subtotal Erdelyi, T.** 16,279 0 16,279

- **Fulling, S.A.**


- **Subtotal Fulling, S.A.** 55,604 12,727 68,330

- **Geller, S.C.**


SEC. 7. RESEARCH ACTIVITY 557
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* Subtotal Lazarov, R.D.                                       | 33,650   | 4,732    | 38,382   |

* Lewis, D.B.


* Subtotal Lewis, D.B.                                         | 51,184   | 2,208    | 53,393   |

* Lima-Filho, P.


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SEC. 7. RESEARCH ACTIVITY
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566  2008 Mathematics Annual Report
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SEC. 7. RESEARCH ACTIVITY 567
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2008 Mathematics Annual Report
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SEC. 7. RESEARCH ACTIVITY 569
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1. Foreword from the Department Head

The physics department has vigorous research programs in physics and astronomy. We offer B.A. and B.S. undergraduate Physics degrees and M.S. and Ph.D. graduate degrees in Physics and Ph.D. degrees in Applied Physics and in Materials Science in Engineering. We have a large number of students enrolled in our service courses. We participate in a number of outreach and service activities, such as the Saturday Morning Physics program at the cyclotron and the annual Physics Festival of hands-on physics demonstrations that also includes a public lecture by a notable physicist.

The physics department had many important accomplishments during 2008.

Construction continued on two new physics buildings, the George P. and Cynthia Woods Mitchell Institute for Fundamental Physics and Astronomy the George P. Mitchell ‘40 Physics Building. These two new buildings will provide much needed and enhanced space for research, teaching and public events. Currently our faculty are spread over three buildings and our undergraduate teaching laboratories are in yet another building that is across campus from our offices. The new buildings will go a long way towards bringing all our activities together. These buildings are made possible by a major gift from George P. and Cynthia Mitchell of Houston.

The expansion of our department into the field of astronomy continues. Four new astronomy faculty joined our faculty in 2008 and early 2009. This brings our total number of astronomy faculty to seven. Darren DePoy has been hired as a tenured Professor to head our astronomy instrumentation program. A major donation from Charles Munnerlyn has funded the renovation of a building to house this program. The junior hires are Lucas Macri, Vy Tran and Casey Papovich. Along with the three faculty hired in 2006 (Nick Suntzeff, Lifan Wang and Kevin Krisciunas), this gives our department an outstanding astronomy group. Through a major gift from George Mitchell, Texas A&M is a participating institution in the Giant Magellan Telescope project, a major astronomy instrumentation effort that will construct a large new optical telescope in Chile.

A proposal to change the name of the department of the Department of Physics and Astronomy was submitted in 2008 and the department also has developed and submitted a proposal to offer graduate degrees in astronomy.

The Texas A&M Faculty Reinvestment Program has made it possible for the department to continue to make a number of outstanding additions to our faculty. New tenured or tenure-track faculty who joined our faculty in 2008 or early 2009, in addition to the four astronomy hires, were Alexander Finkelstein (theoretical condensed matter physics), Dan Melconian (experimental nuclear physics), Igor Roschin (experimental nanoscience), and Helmut Katzgraber (theoretical condensed matter and computational physics). One additional tenure-track faculty member, Ingmar Hartl (experimental AMO physics) was hired in 2008 and will join our faculty in the summer of 2009.

As part of our Academic Program Review, our external review committee visited the department in February, 2008. Their report noted that, “Under the leadership of Professor Fry, the Texas A&M University Physics Department has made tremendous gains since the last review in 1997: 23 new high-quality faculty members were added, including 5 women and 3 Hispanics; 2 new buildings are under construction; a dramatic increase in endowments has been generated; and in response to the last external review report, an excellent new 7-member astrophysics group has been formed. The scale and boldness of these initiatives are the envy of all of us on the review committee.” The external review committee made several very useful suggestions about how we can continue to build on our success.

The endowments in the department continued to grow and now have a book value of about...
Our faculty and students continue to receive national and international recognition and to be leaders in their research communities. In 2008, physics faculty member Marlan Scully was a Morris Loeb Lecturer in Physics at Harvard and was elected to the American Association of Arts and Sciences. Alexei Sokolov was designated a Fellow of the Optical Society of America. Graduate student Peter Wagner received the Universities Research Association Thesis Award and Nate Pogue received the Distinguished Student Award from the International Linear Collider School. Carl Gagliardi was the deputy spokesperson for the STAR collaboration and Alexei Safonov was the convenor of the U.S. CMS LPC Tau Group. Bob Tribble was Chair of the Nuclear Science Advisory Committee. Nick Suntzeff held several leadership positions in the international astronomy community, including Councilor and member of the Committee on Astronomy and Public for the American Astronomy Society, and member of the Astrophysics Subcommittee Panel of the NASA Advisory Committee on Science.

Our faculty and students also performed exceptionally within the university community and some of their accomplishments were acknowledged by awards. Wenhao Wu and Bhaskar Dutta were granted tenure. Dave Toback and Tatiana Erukimova each received a Student Led Award for Teaching Excellence for Fall 2008. Dave Toback was also named a Thaman Professor, a University Professorship for Undergraduate Teaching. Rainer Fries was named the College of Science’s 2008/2009 Montague Scholar. Joe Ross was a finalist for the Texas A&M Presidential Award of Excellence for Faculty Service to International Students. Jairo Sinova received a college-level Association of Former Students Distinguished Achievement Award in Teaching and a Big 12 Faculty Fellowship. Four of our graduate students received Student Presentation Awards from the Texas Section of the American Physical Society and six of our students received awards at the Student Research Week. Five of our graduate students received Teaching Assistant Awards from the American Association of Physics Teachers. Undergraduate physics major Alden Harris received a College of Science John B. Beckham Award.

The physics department thanks everyone who contributed to an outstanding year for the department!
2. Departmental Statistics

This section contains information, clarified by each department and gathered from the following sources:

I. Personnel

Tenure-Track Faculty

▷ Queried from the College of Science Faculty Database. (Fall 2007) Baselines, Title, Gender, Ethnicity, Queried from the College of Science Dean Database (Fall 2008) FacultyList_FINAL.

Non-Tenure-Track Faculty

▷ Provided by the Department (Fall 2007), Queried from the College of Science Dean Database (Fall 2008) FacultyList_nonTTF.

Postdoctoral Fellows

▷ Provided by the Department

Graduate Student/Undergraduate Majors

▷ Office of Institutional Studies and Planning (OISP). (Fall 2007, Fall 2008) Enrollment Profile, Headcount by Major by Level, Fall for [Year].

Support Staff

▷ Provided by the Department

II. Instructional Activities

Graduate Semester Credit Hours/Undergraduate Semester Credit Hours

▷ SCH: Undergraduate and Graduate - Office of Institutional Studies and Planning (OISP). (Fall 2008) SCH Summaries by College for [Semester] [Year].

PhD Degrees/Masters Degrees

▷ Queried from COGNOS and the College of Science Dean Database Degrees_Grad.

Undergraduate Degrees

▷ Queried from COGNOS and the College of Science Dean Database Degrees_Undergrad.

III. Research Activities

Research Publications

▷ Queried from Web of Science® and compiled from the College of Science Dean Database Publications_COUNT.

Research Presentations

▷ As reported by faculty and compiled from the College of Science Dean Database Presentations_COUNT.

Federal/State/University/Private/Industrial/International/Other Government

▷ Gathered from research proposals, research award notices, as reported by faculty, compiled from the College of Science Dean Database, Sec. 7.1 of following department annual report.
## 2.1 Statistical Abstract

### I. Personnel

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<td>Visiting Associate Professor</td>
<td>2</td>
<td>4</td>
</tr>
<tr>
<td>Lecturer</td>
<td>4</td>
<td>3</td>
</tr>
<tr>
<td>Senior Lecturer</td>
<td>0</td>
<td>0</td>
</tr>
<tr>
<td><strong>c. Postdoctoral Fellows</strong></td>
<td>34</td>
<td>28</td>
</tr>
<tr>
<td><strong>d. Graduate Majors</strong></td>
<td>149</td>
<td>150</td>
</tr>
<tr>
<td><strong>e. Undergraduate Majors</strong></td>
<td>127</td>
<td>134</td>
</tr>
<tr>
<td><strong>f. Support Staff</strong></td>
<td>29</td>
<td>26</td>
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</tbody>
</table>

### II. Instructional Activities

<table>
<thead>
<tr>
<th>Category</th>
<th>2007</th>
<th>2008</th>
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<tbody>
<tr>
<td><strong>a. Graduate Semester Credit Hours</strong></td>
<td>2,790</td>
<td>2,958</td>
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<tr>
<td><strong>b. Undergraduate Semester Credit Hours</strong></td>
<td>27,063</td>
<td>27,939</td>
</tr>
<tr>
<td><strong>c. PhD Degrees</strong></td>
<td>15</td>
<td>17</td>
</tr>
<tr>
<td><strong>d. Masters Degrees</strong></td>
<td>11</td>
<td>6</td>
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<tr>
<td><strong>e. Undergraduate Degrees</strong></td>
<td>17</td>
<td>16</td>
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### III. Research Activities

<table>
<thead>
<tr>
<th>Category</th>
<th>2007</th>
<th>2008</th>
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<tbody>
<tr>
<td><strong>a. Research Publications</strong></td>
<td>453</td>
<td>446</td>
</tr>
<tr>
<td><strong>b. Research Presentations</strong></td>
<td>433</td>
<td>353</td>
</tr>
<tr>
<td><strong>c. Federal</strong></td>
<td>9,829,189</td>
<td>8,554,023</td>
</tr>
<tr>
<td><strong>d. State</strong></td>
<td>187,175</td>
<td>162,133</td>
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<tr>
<td><strong>e. University</strong></td>
<td>15,399</td>
<td>45,810</td>
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<tr>
<td><strong>f. Private/Non-Profit</strong></td>
<td>1,002,851</td>
<td>1,024,764</td>
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<tr>
<td><strong>g. Industrial/Corporate</strong></td>
<td>202,194</td>
<td>132,488</td>
</tr>
<tr>
<td><strong>h. International</strong></td>
<td>62,140</td>
<td>333,062</td>
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<tr>
<td><strong>i. Other Govt</strong></td>
<td>282,288</td>
<td>15,529</td>
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<tr>
<td><strong>Total</strong></td>
<td><strong>11,581,236</strong></td>
<td><strong>10,267,810</strong></td>
</tr>
</tbody>
</table>
3. Honors & Awards, 2008

By Faculty

▷ This section contains all honors and awards, as reported by individual faculty members, during the calendar year 2008.

By Students

▷ This section contains all honors and awards, as reported by the department, during the calendar year 2008.
## 3.1 Honors & Awards Received by Faculty, 2008

<table>
<thead>
<tr>
<th>Name</th>
<th>Award</th>
</tr>
</thead>
<tbody>
<tr>
<td>T. Erukhimova</td>
<td>Student Led Award - Teaching Excellence, Texas A&amp;M University</td>
</tr>
<tr>
<td>R. Fries</td>
<td>Montague Scholar - Teaching Excellence, Center for Teaching Excellence</td>
</tr>
<tr>
<td>C. Gagliardi</td>
<td>Deputy Spokesperson, STAR Collaboration</td>
</tr>
<tr>
<td>D. Nanopoulos</td>
<td>Skai list of 100 Great Greeks of all time, BBC</td>
</tr>
<tr>
<td>C. Pope</td>
<td>Graduate Student Award - Teaching, Physics Department, Texas A&amp;M University</td>
</tr>
<tr>
<td>M. Scully</td>
<td>Loeb Lecturer, Harvard University</td>
</tr>
<tr>
<td>J. Sinova</td>
<td>Big 12 Faculty Fellowship, Texas A&amp;M University</td>
</tr>
<tr>
<td></td>
<td>Distinguished Achievement Award - Teaching, The Association of Former Students</td>
</tr>
<tr>
<td>A. Sokolov</td>
<td>Fellow, Optical Society of America</td>
</tr>
<tr>
<td>D. Toback</td>
<td>Student Led Award - Teaching Excellence, Texas A&amp;M University</td>
</tr>
<tr>
<td></td>
<td>University Professorships for Undergraduate Teaching Excellence, Texas A&amp;M University</td>
</tr>
</tbody>
</table>
3.2 Honors & Awards Received by Students, 2008

Graduate

- Student Research Week
  - Jonathan Asaadi
  - Alfredo Gurrola
  - John Noel
  - Milan Poudel
  - Isabel Schultz

Undergraduate

- American Association of Physics Teachers Teaching Assistants Award
  - Jonathan Asaadi
  - Michael Van Dyke
  - Tristan Legget
  - James Maxin
  - Chris O’Brien

- Barry M. Goldwater Scholarship, Texas A&M University
  - Phuongmai Truong

- Coleman Loyd Scholarship-Physics
  - Jeshurun Judah Hembd

- Distinguished Student Award, International Linear Collider School
  - Nate Pogue

- Donald F. Hagan Endowed Scholarship in Physics
  - Emilian Marius Nica

- Freshman/Sophomore Math Contest
  - Tyler Behm

- Jack McIntyre Scholarship in Physics
  - David Alejandro Lugo
  - Salma Mahzooni
  - Siying Peng

- James G. Potter Quasi Endowed Scholarship
  - Stephan Paul Krusi
  - Hsin Zon Tsai

- John B. Beckham Award
  - Alden Harris

- Marianne E. ’76 & Robert W. ’77 Hamm Endowed Scholarships in Physics
  - Chandler A. Cell
  - Ryan D. Mueller
  - Gessner Antonio Soto
• Matthew P. Hodges ’00 Memorial Scholarship
  Christopher English

• National Research Council Postdoctoral Fellowship
  Paul Hsu

• Student Research Week
  Christopher English

• Texas Section of the American Physical Society Student Presentation Award
  Paul Bruillard
  Sean Downes
  Eddie Holik
  Sergio Rodriguez

• Universities Research Association Thesis Award
  Peter Wagner
4. Students, 2008

This section contains all degrees awarded, as reported by the department, during the calendar year 2008.
### 4.1 Graduate Degrees Awarded, 2008

#### Fall

**M.S.**

- **Venkata Ramalaxmi Chaganti**: Nonlinear Quantum Well Photodetectors using Frequency Upconversion  
  **Advisor(s):** A. Belyanin

- **Eddie Frank Holik**: Simulation Results of an Inductively-coupled Rf Plasma Torch in Two and Three Dimensions for Producing a Metal Matrix Composite for Nuclear Fuel Cladding  
  **Advisor(s):** P. McIntyre

- **Sunnam Min**  
  **Advisor(s):** R. Webb

**Ph.D.**

- **Petr M. Anisimov**: Quantum Coherence Phenomena In X-ray Optics  
  **Advisor(s):** O. Kocharovskaya

- **Mario Francis Borunda Bermudez**: Topics in Two-dimensional Systems with Spin-Orbit Interaction  
  **Advisor(s):** J. Sinova

- **Juntao Chang**: Characteristics of Cooperative Spontaneous Radiation with Applications to Atom Microscopy and Coherent Xuv Radiation Generation  
  **Advisor(s):** M. Zubairy

- **Venkateshwarlu Goruganti**: Transport and Magnetic Properties of Rtx and Related Compounds  
  **Advisor(s):** J. Ross

- **Vladimir Lioubimov**: Precision Absolute Frequency Laser Spectroscopy of Argon Ii In Parallel and Antiparallel Geometry using a Frequency Comb for Calibration  
  **Advisor(s):** H. Schuessler

- **Lijun Qin**: Low Density Nuclear Matter in Heavy Ion Collisions  
  **Advisor(s):** R. Tribble

- **Feng Xie**: Resonant Optical Nonlinearities in Cascade and Coupled Quantum Well Structures  
  **Advisor(s):** A. Belyanin

- **Huachun Xu**: Spin Hall Effect in Paramagnetic Thin Films  
  **Advisor(s):** W. Teizer

#### Spring

**Ph.D.**

- **Xinfeng Chen**: Giant Resonance Study by 6li Scattering
Advisor(s): D. Youngblood
Paul Steve Hsu Magneto-optical Control of Coherent Nonlinear Processes
Advisor(s): G. Welch
Vadim Khotilovich Search for Pair Production OfScalar Top Quarks Decaying to a Tau Lepton and A B Quark in 1.96- tev Ppbar Collisions
Advisor(s): T. Kamon
Lianxi Ma Electron Tunneling Studies of Mn12-acetate
Advisor(s): G. Agnolet
Dmitry Pestov Detection Of Bacterial Endospores by Means of Ultrafast Coherent Raman Spectroscopy
Advisor(s): A. Sokolov
Ling Wang Measuring Optical Absorption Coefficient of Pure Water in Uv using the Integrating Cavity Absorp- tion Meter
Advisor(s): E. Fry

Summer
▷ M.S.
Joong-hyeok Byeon Ultrashort Laser Pulse Propagation in Water
Advisor(s): G. Kattawar
Konstantin Evgenievich Dorfman Mesoscopic Effects in Bose-einstein Condensate Fluctuations of an Ideal Gas in a Box
Advisor(s): V. Kocharovsky
Fang Tang

▷ Ph.D.
Weiping Gou A Nuclear Magnetic Resonance Probe of Group Iv Clathrates
Advisor(s): J. Ross
Xinmei Qu Mercury Dimer Spectroscopy and an Einstein-podolsky-rosen Experiment
Advisor(s): E. Fry
Yu You Applications of the Generalized Dda Formalism And the Nature of Polarized Light in Deep Oceans
Advisor(s): G. Kattawar
## 4.2 Undergraduate Degrees Awarded, 2008

### Fall

<table>
<thead>
<tr>
<th>Degree</th>
<th>Name(s)</th>
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<tbody>
<tr>
<td>B.A.</td>
<td>Jason Thomas Brubaker</td>
</tr>
<tr>
<td></td>
<td>James Austin Stoker</td>
</tr>
<tr>
<td>B.S.</td>
<td>David Alexander Grillot</td>
</tr>
<tr>
<td></td>
<td>Luke Aaron Hunter</td>
</tr>
<tr>
<td></td>
<td>Christopher James Monk</td>
</tr>
<tr>
<td></td>
<td>Joshua Colt Perkins</td>
</tr>
<tr>
<td></td>
<td>Brett Matthew Savoie</td>
</tr>
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</table>

### Spring

<table>
<thead>
<tr>
<th>Degree</th>
<th>Name(s)</th>
</tr>
</thead>
<tbody>
<tr>
<td>B.A.</td>
<td>Varun Chowdhary</td>
</tr>
<tr>
<td>B.S.</td>
<td>Jeffrey David Bouas</td>
</tr>
<tr>
<td></td>
<td>Aaron Michael Collier</td>
</tr>
<tr>
<td></td>
<td>David Patrick Darrow</td>
</tr>
<tr>
<td></td>
<td>Ross Bement McDonald</td>
</tr>
<tr>
<td></td>
<td>Vaikunth Thukral</td>
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</table>

### Summer

<table>
<thead>
<tr>
<th>Degree</th>
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<tbody>
<tr>
<td>B.A.</td>
<td>William Forster Rasmussen</td>
</tr>
<tr>
<td>B.S.</td>
<td>Christopher Neil Barot</td>
</tr>
<tr>
<td></td>
<td>Ryan Romera</td>
</tr>
</tbody>
</table>
## 5. Colloquium and Seminar Speakers, 2008

### Atomic and Quantum Optics

<table>
<thead>
<tr>
<th>Date</th>
<th>Speaker</th>
<th>Institution</th>
<th>Title</th>
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<tbody>
<tr>
<td>4/14/2008</td>
<td>Jie Shan</td>
<td><em>Case Western Reserve University</em></td>
<td>Probing Charge Transport by Terahertz Time-Domain Spectroscopy</td>
</tr>
<tr>
<td>4/15/2008</td>
<td>Girish S. Agarwal</td>
<td><em>Oklahoma State University</em></td>
<td>Quantum Imaging and Sensing Beyond Rayleigh Resolution</td>
</tr>
<tr>
<td>5/14/2008</td>
<td>Ernst Rasel</td>
<td><em>Gottfried Wilhelm Leibniz Universitat</em></td>
<td>Bose-Einstein Condensation in Microgravity</td>
</tr>
<tr>
<td>5/23/2008</td>
<td>Dean Astumian</td>
<td><em>University of Maine</em></td>
<td>Reciprocal Relations for Coupled Transport Far from Equilibrium</td>
</tr>
<tr>
<td>9/8/2008</td>
<td>Marlan Scully</td>
<td><em>Texas A&amp;M University</em></td>
<td>The Quantum Theory of Angular Momentum from Clebsch and Gordan to Dicke and Lamb</td>
</tr>
<tr>
<td>10/2/2008</td>
<td>Dudley Herschbach</td>
<td><em>Texas A&amp;M University</em></td>
<td>Getting Friendly with Molecules</td>
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<tr>
<td>11/19/2008</td>
<td>H. Vincent Poor</td>
<td><em>Princeton University</em></td>
<td>Physical Layer Security in Wireless Networks in Classical and Quantum Models</td>
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<tr>
<td>12/4/2008</td>
<td>Federico Capasso</td>
<td></td>
<td>Quantum Cascade Lasers: From Band-Engineering to Wavefront Engineering</td>
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<tr>
<td>12/4/2008</td>
<td>Owen Gingerich</td>
<td></td>
<td>Four Myths of the Copernican Revolution</td>
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<tr>
<td>12/4/2008</td>
<td>Owen Gingerich</td>
<td></td>
<td>The Divine Handiwork: Evolution and the Wonder of Life</td>
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<tr>
<td>12/4/2008</td>
<td>Dudley Herschbach</td>
<td><em>Texas A&amp;M University</em></td>
<td>Teaching Science as a Liberal Art</td>
</tr>
<tr>
<td>12/4/2008</td>
<td>Marlan Scully</td>
<td><em>Texas A&amp;M University</em></td>
<td>Quantum Thermodynamics: A New Slant on the Role of Information in the Cosmos</td>
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</table>
Charles Townes

The Sizes, Shapes, and Changes of Old Stars

Charles Townes

The Parallelism and Likely Eventual Convergence of Science and Religion
### Colloquia

<table>
<thead>
<tr>
<th>Date</th>
<th>Speaker</th>
<th>Institution</th>
<th>Topic</th>
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<tbody>
<tr>
<td>1/14/2008</td>
<td><strong>Alexander Sergeev</strong></td>
<td>Institute of Applied Physics of the Russian Academy of Sciences</td>
<td>Development of Petawatt Laser Facilities in Russia and Their Applications</td>
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<tr>
<td>1/17/2008</td>
<td><strong>David Sandison</strong></td>
<td>Sandia National Laboratory</td>
<td>Driving Micromachines from Ideas to Impact - A National Security Perspective</td>
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<tr>
<td>1/22/2008</td>
<td><strong>Richard Cavanaugh</strong></td>
<td>University of Florida</td>
<td>The LHC and CMS: Probing the Great Questions of Particle Physics and Cosmology</td>
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<tr>
<td>1/24/2008</td>
<td><strong>Kaixuan Ni</strong></td>
<td>Yale University</td>
<td>Searches for New Physics with Underground Xenon Detectors</td>
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<tr>
<td>1/28/2008</td>
<td><strong>Andrew Ivanov</strong></td>
<td>University of California, Davis</td>
<td>The Truth?.. And Nothing but the Truth?.. The Top Quark as a Gateway to New Physics</td>
</tr>
<tr>
<td>1/30/2008</td>
<td><strong>Rupak Mahapatra</strong></td>
<td>University of California, Santa Barbara</td>
<td>Recoiling against the Dark Universe: CDMS Dark Matter Search</td>
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<tr>
<td>1/31/2008</td>
<td><strong>Carlos Villarreal</strong></td>
<td>Universidad Nacional Autonoma de Mexico</td>
<td>Vacuum Fluctuations and Casimir Forces</td>
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<tr>
<td>2/4/2008</td>
<td><strong>Christopher Mauger</strong></td>
<td>California Institute of Technology</td>
<td>Neutrino Flavor-Mixing - News from the Frontier</td>
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<tr>
<td>2/7/2008</td>
<td><strong>John Gladysz</strong></td>
<td>Texas A&amp;M University</td>
<td>A Chemist’s Quest for Molecular Gyroscopes</td>
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<tr>
<td>2/12/2008</td>
<td><strong>Brian Rebel</strong></td>
<td>Fermi National Accelerator Laboratory</td>
<td>Neutrino Oscillation Experiments - Past, Present and Future</td>
</tr>
<tr>
<td>2/14/2008</td>
<td><strong>John Schwarz</strong></td>
<td>California Institute of Technology</td>
<td>Connecting String Theory to the Real World</td>
</tr>
<tr>
<td>2/28/2008</td>
<td><strong>Lew Cocke</strong></td>
<td>Kansas State University</td>
<td>Using Short-Pulse Lasers to Probe Time-Dependent Motion in Molecules</td>
</tr>
<tr>
<td>3/6/2008</td>
<td><strong>Andrew Strominger</strong></td>
<td>Harvard University</td>
<td>String Theory, Black Holes and the Fundamental Laws of Nature</td>
</tr>
</tbody>
</table>
3/21/2008  Leo Hollberg  
*National Institute of Standards and Technology*  
Cold Atoms and Fast Lasers for Precision Measurements

3/24/2008  Ingmar Hartl  
*IMRA America Inc.*  
High Power Optical Frequency Combs: Ultracoherent Light Sources for High Field Physics

3/27/2008  Alexander Finkelstein  
*Texas A&M University*  
Metal-Insulator Transition in Disordered Two-Dimensional Electron Systems

4/3/2008  Lijun Wang  
*Max-Planck Research Group Optics and Imaging*  
Precision Measurement of Gravity, Time and Applications

4/10/2008  Douglas Natelson  
*Rice University*  
Single-Molecule Junctions: Electronic and Optical Properties

4/17/2008  Ilya Gruzberg  
*University of Chicago*  
Stochastic Geometry in Nature: Fractals and Multifractals and How to Study Them

4/24/2008  David Larbalestier  
*National High Magnetic Field Laboratory*  
Can the Cuprate Superconductors or MgB$_2$ Replace Niobium in Materials for Superconducting Magnets?

5/13/2008  Eleftherios Goulielmakis  
*Max Planck Institute for Quantum Optics*  
Attosecond Physics: Tracking Electronic Processes with sub-100-Attosecond Resolution

5/15/2008  Andre Staudte  
*National Research Council of Canada*  
Steering Electrons With Light - A Collision Physics Perspective On Attosecond Technology

5/22/2008  Mikhail Belkin  
*Harvard University*  
Quantum Cascade Lasers - Bridging the THz gap with Semiconductor Lasers

9/11/2008  Bhaskar Dutta  
*Texas A&M University*  
Precision Cosmology at the Large Hadron Collider

9/17/2008  Alexei Sofonov  
*Texas A&M University*  
LHC: A New Era has Just Started

9/18/2008  Saskia Mioduszewski  
*Texas A&M University*  
Probing High-Temperature QCD Matter
9/25/2008  Milivoj Belic  
*Texas A&M University*  
Dancing Light: Counter-Propagating Beams in Photonic Crystals

10/2/2008  Kevin Lehmann  
*University of Virginia*  
Spectroscopy and Dynamics of Helium Nanodroplets

10/9/2008  Suhail Zubairy  
*Texas A&M University*  
Beyond the Rayleigh Limit in Optical Lithography

10/10/2008  Vsevolod Gantmakher  
*Russian Academy of Science*  
Experimental Studies of Superconductor-Insulator Transitions

10/16/2008  Vsevolod Gantmakher  
*Russian Academy of Science*  
Metal-Insulator Transition in High Density Electron Gas (“Chemical” or “Two-Step” Localization)

10/17/2008  Vsevolod Gantmakher  
*Russian Academy of Science*  
Critical Magnetic Field in Marginal Superconductors

10/23/2008  Lifan Wang  
*Texas A&M University*  
Is Dome a, Antarctica the Best Site for Ground-Based Astronomy?

10/30/2008  Jack Bass  
*Michigan State University*  
Giant Magnetoresistance: Electron Spin Matters

11/6/2008  Ildar Gabitov  
*University of Arizona*  
Ambidextrous Light in a Nonlinear Left-Handed World

11/13/2008  Karl Gebhardt  
*University of Texas*  
How to Profit from the Inflationary Universe

11/20/2008  Mark Lemmon  
*Texas A&M University*  
One Summer in the Martian Arctic

12/11/2008  Philip Stamp  
*University British Columbia*  
Large-Scale Quantum Phenomena, and the Decoherence Enigma
<table>
<thead>
<tr>
<th>Date</th>
<th>Presenter</th>
<th>Affiliation</th>
<th>Title</th>
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</thead>
<tbody>
<tr>
<td>1/23/2008</td>
<td>Georg Schwiete</td>
<td>Texas A&amp;M University</td>
<td>Persistent Current and Susceptibility in Small Superconducting Rings</td>
</tr>
<tr>
<td>1/30/2008</td>
<td>Carlos Villarreal</td>
<td>Universidad Nacional Autonoma de Mexico</td>
<td>Bose-Einstein Condensation in Quasi-2D Systems and High Tc Superconductivity</td>
</tr>
<tr>
<td>2/6/2008</td>
<td>Karen Michaeli</td>
<td>Weizmann Institute of Science</td>
<td>Tunneling of an Extended Object in a Dissipative Environment: Suppression of Tunneling of Superconducting Vortices Caused by a Remote Gate</td>
</tr>
<tr>
<td>2/13/2008</td>
<td>Emilia Morosan</td>
<td>Rice University</td>
<td>New Properties in Old Materials: The Layered Dichalcogenides</td>
</tr>
<tr>
<td>2/20/2008</td>
<td>Jung-Jung Su</td>
<td>University of Texas</td>
<td>How to Make a Bilayer Exciton Condensate Flow</td>
</tr>
<tr>
<td>3/5/2008</td>
<td>Valery Pokrovsky</td>
<td>Texas A&amp;M University</td>
<td>Bose Condensation in Disordered Systems</td>
</tr>
<tr>
<td>3/19/2008</td>
<td>Alexey Kovalev</td>
<td>Texas A&amp;M University</td>
<td>Keldysh Approach to the Anomalous Hall Effect</td>
</tr>
<tr>
<td>4/9/2008</td>
<td>Gleb Finkelstein</td>
<td>Duke University</td>
<td>Carbon Nanotube Quantum Dots: From the Coulomb Blockade to the SU(4) Kondo and the Mixed Valence Regimes</td>
</tr>
<tr>
<td>4/18/2008</td>
<td>Ilya Gruzberg</td>
<td>University of Chicago</td>
<td>Critical Wave Functions, Point Contact Conductances, and Theories for Quantum Hall Transitions</td>
</tr>
<tr>
<td>4/30/2008</td>
<td>Victor Galitski</td>
<td>University of Maryland</td>
<td>Quantum Fluctuations in Superconductors</td>
</tr>
<tr>
<td>5/9/2008</td>
<td>Artem Abanov</td>
<td></td>
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</tbody>
</table>
Stony Brook University
Allowed Charge Transfers Between Coherent Conductors Driven by a Time-Dependent Scatterer

5/14/2008 Thomas Jungwirth
Association of Specialists in Cleaning and Restoration, The University of Nottingham
Spintronics in Metals and Semiconductors

8/26/2008 Valery Ryazanov
Russian Academy of Sciences
Supercurrents Through a Ferromagnet. Josephson pi-Junctions as Superconducting Phase Inverters

9/3/2008 Zuxin Ye
Texas A&M University
Electrochemical Deposition of Magnetic Nanowire Arrays in Porous Al2O3 Templates

9/15/2008 Arkady Shekhter
University of California, Riverside
d-wave Superconductivity from Loop Currents in Cuprates

9/24/2008 Dong Hee Son
Texas A&M University
Magnetization Dynamics in Colloidal Superparamagnetic Nanocrystals

10/24/2008 Dima Mozyrsky
Los Alamos National Lab
Quantum Nucleation in Cold Atomic Boson-Fermion Mixtures

10/31/2008 Eugene Chudnovsky
City University of New York
Some New Tricks in Spin Physics

11/5/2008 James Batteas
Texas A&M University
Conduction in Confined Molecular Assemblies

11/21/2008 Karen Michaeli
Weizmann Institute Of Science
Fluctuations of the Superconducting Order Parameter as an Origin of the Nernst Effect

12/5/2008 Karen Michaeli
Weizmann Institute Of Science
Thermal Transport in the Presence of Electron-Electron Interactions and Disorder

12/10/2008 P. Stamp
British Columbia
Interactions and the dHvA Effect in 2 Dimensions

12/12/2008 Nikolai Sinitsyn
Los Alamos National Lab
Stochastic Pump Effect
High Energy Physics

1/4/2008  Chris Beasley
          *Harvard University*
          Localization for Wilson Loops in Chern-Simons Theory

1/22/2008  Jason Kumar
          *University of California, Irvine*
          Inflation and Non-Gaussianities from String Theory

2/1/2008  David Morrison
          *Duke University*

2/12/2008  John Schwarz
          *California Institute of Technology*
          N=8 Superconformal Chern-Simons Theories

2/18/2008  Alessandro Tomasiello
          *Harvard University*

2/22/2008  Jian-Xin Lu
          *University of Science and Technology of China*
          Intersecting Non-Susy p-brane with Chargeless 0-brane as Black p-brane

2/26/2008  Yudi Santoso
          *Durham University*
          Gravitino Dark Matter with Various NLSP

3/3/2008  Liam Fitzpatrick
          *Harvard University*
          The Phenomenology of Extra Ordinary Gauge Mediation

3/7/2008  Tony Pantev
          *University of Pennsylvania*
          Geometry/String Joint

3/18/2008  Katrin Becker
          *Texas A&M University*
          Fluxes, Torsion and Heterotic Strings

3/24/2008  Sebastian Franco
          *Princeton University*
          D-brane Model Building and N-ification of the Forces

4/1/2008  Cynthia Keeler
          *University of California, Berkeley*
          Closed String Tachyon Condensation in the $E_8$ Heterotic System

4/4/2008  Alex Maloney
          *McGill University*
          Quantum Gravity Partition Functions in Three Dimensions

4/4/2008  Ilarion Melnikov

592  2008 Physics Annual Report
University of Chicago
Half-Twisted Sigma Models and Generalized Gromov-Witten Invariants

4/7/2008  Joseph Conlon
University of Cambridge
Hierarchy Problems in String Theory - an Overview of the Large Volume Models

4/18/2008  Norihiro Iizuka
Kavli Institute for Theoretical Physics
A Matrix Model for Black Hole Thermalization

4/22/2008  Justin Vazquez-Poritz
Baruch College - The City University of New York
Quark Energy Loss from AdS/CFT

4/28/2008  Sonia Paban
University of Texas
Can Initial Inhomogeneities and Anisotropies Affect the Onset of Inflation?

5/5/2008  Kuver Sinha
State University of New Jersey
Meta-stable Dynamical Supersymmetry Breaking Near Points of Enhanced Symmetry

9/2/2008  Hans Jockers
Stanford University
Supergravity and String Signatures of the One-Parameter Model at LHC

9/8/2008  Ergin Sezgin
Texas A&M University
SUSY Breaking and Gauge Mediation in F-theory GUTs

9/15/2008  Dan Freed
University of Texas
GUT-less SUSY Phenomenology

9/18/2008  Pearl Sandick
University of Texas
Orientifolds and Topology

9/22/2008  Joseph Marsano
California Institute of Technology
Superconformal Gaugings in Three Dimensions

9/25/2008  Dimitri Nanopoulos
Texas A&M University
Effective Superpotentials for Compact D5-brane Calabi-Yau Geometrics

10/3/2008  Andrew Neitzke
Institute for Advanced Study
BPS Wall-Crossing and Dimensional Reduction

10/6/2008  Jonathan Heckman
Harvard University
From F-theory GUTs to the Weak Scale
<table>
<thead>
<tr>
<th>Date</th>
<th>Name</th>
<th>Affiliation</th>
<th>Topic</th>
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<tbody>
<tr>
<td>10/9/2008</td>
<td>Harun Omer</td>
<td>Harvard University</td>
<td>Model Building with Matrix Factorizations: Toroidal Orientifolds</td>
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<tr>
<td>10/13/2008</td>
<td>Rhiannon Gwyn</td>
<td>McGill University</td>
<td>Magnetic Fields from Heterotic Cosmic Strings</td>
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<tr>
<td>10/15/2008</td>
<td>Andrew Stominger</td>
<td>Harvard University</td>
<td>The Kerr/CFT Correspondence</td>
</tr>
<tr>
<td>10/16/2008</td>
<td>Jason Kumar</td>
<td>Hawaii University</td>
<td>The WIMPless Miracle and the DAMA Puzzle</td>
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<tr>
<td>10/20/2008</td>
<td>Paolo Gondolo</td>
<td>University of Utah</td>
<td>Dark Matter and the First Stars</td>
</tr>
<tr>
<td>10/24/2008</td>
<td>Charles Doran</td>
<td>University Alberta</td>
<td>Normal Forms for K3 Surfaces and Modular Parametrization</td>
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<tr>
<td>10/27/2008</td>
<td>Eric Bergshoeff</td>
<td>Groningen University</td>
<td>Supersymmetry in Three Dimensions</td>
</tr>
<tr>
<td>10/30/2008</td>
<td>Henning Samtleben</td>
<td>Lyon University</td>
<td>Tensor Hierarchies and the Trombone</td>
</tr>
<tr>
<td>11/4/2008</td>
<td>Sumit Das</td>
<td>University of Kentucky</td>
<td>ADS/CFT and Cosmological Singularities</td>
</tr>
<tr>
<td>11/7/2008</td>
<td>Paul Aspinwall</td>
<td>Duke University</td>
<td>Probing Geometry with D-branes</td>
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<td>11/10/2008</td>
<td>Andrew Tolley</td>
<td>Perimeter Institute</td>
<td>Cascading Gravity</td>
</tr>
<tr>
<td>11/17/2008</td>
<td>David Chow</td>
<td>Texas A&amp;M University</td>
<td>Constructing AdS Black Holes in Gauged Supergravities</td>
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<tr>
<td>11/24/2008</td>
<td>Daniel Grumiller</td>
<td>Massachusetts Institute of Technology</td>
<td>3D Quantum Gravity?</td>
</tr>
<tr>
<td>12/1/2008</td>
<td>Daniel Jafferis</td>
<td>Rutgers</td>
<td>M2 Branes and Chern-Simons-Matter Theories</td>
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</table>
### Nuclear Physics

<table>
<thead>
<tr>
<th>Date</th>
<th>Speaker</th>
<th>University</th>
<th>Title</th>
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</thead>
<tbody>
<tr>
<td>1/25/2008</td>
<td>Hendrik van Hees</td>
<td>Texas A&amp;M University</td>
<td>Theoretical Review of Dileptons from Heavy Ion Collisions</td>
</tr>
<tr>
<td>2/8/2008</td>
<td>Ricardo Rodriguez</td>
<td>Southern Methodist University</td>
<td>QCD Resummation for the Fully Differential Drell-Yan Cross Section</td>
</tr>
<tr>
<td>2/22/2008</td>
<td>Murad Sarsour</td>
<td>Texas A&amp;M University</td>
<td>Constraints on Gluon Polarization in the Proton from STAR data</td>
</tr>
<tr>
<td>2/29/2008</td>
<td>Wei Liu</td>
<td>Texas A&amp;M University</td>
<td>Probing Nuclear Matter with Jet Conversions</td>
</tr>
<tr>
<td>4/4/2008</td>
<td>Pasi Huovinen</td>
<td>Purdue University</td>
<td>From Perfect Liquid to Viscous Fluid: Hydrodynamics at RHIC</td>
</tr>
<tr>
<td>4/25/2008</td>
<td>Yongseok Oh</td>
<td>Texas A&amp;M University</td>
<td>Photoproduction of Strangeness: $K^<em>\Lambda/K^</em>\Sigma$ production and $K\Sigma^*$</td>
</tr>
<tr>
<td>9/26/2008</td>
<td>Xingbo Zhao</td>
<td>Texas A&amp;M University</td>
<td>Charmonium Production in Heavy-Ion Collisions</td>
</tr>
<tr>
<td>10/31/2008</td>
<td>Felix Riex</td>
<td>Texas A&amp;M University</td>
<td></td>
</tr>
<tr>
<td>12/5/2008</td>
<td>Boa-an Li</td>
<td>Texas A&amp;M University</td>
<td>Constraining the EOS of Neutron-Rich Nuclear Matter and Properties of Neutron Stars with Central Heavy-Ion Collisions</td>
</tr>
</tbody>
</table>
6. Faculty, 2008

Artem G. Abanov ........................................... Assistant Professor
Thomas W. Adair ........................................... Professor
Glenn Agnolet .............................................. Professor
Roland E. Allen ........................................... Professor
Richard L. Arnowitt ................................. Distinguished Professor Emeritus (A)
William H. Bassichis ................................ Professor
Katrin Becker ................................................ Professor
Melanie Becker ............................................. Professor
Alexey A. Belyanin ................................. Associate Professor
Ronald A. Bryan ........................................... Professor
Siu Ah Chin ................................................ Professor
David A. Church .......................................... Professor
Robert B. Clark .......................................... Professor
Darren L. DePoy .......................................... Professor
Nelson M. Duller ......................................... Professor
Bhaskar Dutta ............................................... Professor
Tatiana L. Erukhimova .............................. Lecturer
Alexander M. Finkelstein ......................... Professor
A. Lewis Ford ............................................. Professor
Rainer J. Fries ............................................. Assistant Professor
Edward S. Fry ............................................ Professor
Carl A. Gagliardi ........................................ Professor
John C. Hardy ............................................. Distinguished Professor
Dudley Herschbach ..................................... Professor
Chia-Ren Hu ............................................... Professor
Dave Hyland ............................................. Professor (J)
Teruki Kamon ............................................. Professor
George W. Kattawar ................................... Professor
Leonid V. Keldysh ....................................... Professor
Che-Ming Ko .............................................. Professor
Olga A. Kocharovskaya .............................. Distinguished Professor
Vitaly V. Kocharovsky ............................... Professor
Kevin Krisciunas ........................................ Lecturer
Jaan Laane ................................................ Professor (J)
Igor F. Lyuksyutov ..................................... Associate Professor
Lucas Macri .............................................. Assistant Professor
Rupak Mahapatra ...................................... Assistant Professor
Peter M. McIntyre ..................................... Professor
Dan G. Melconian ..................................... Assistant Professor
Saskia Mioduszewski ............................... Assistant Professor
Joseph A. Musser ....................................... Lecturer
Dimitri V. Nanopoulos .............................. Distinguished Professor
Donald G. Naugle ....................................... Professor
Casey Papovich ......................................... Assistant Professor
Gerhard G. Paulus ...................................... Associate Professor
Valery L. Pokrovsky ................................ Professor
Christopher N. Pope ................................. Distinguished Professor
Ralf Rapp .................................................. Associate Professor
John F. Reading .............................................. Professor
Igor V. Roshchin ............................................. Assistant Professor
Joseph H. Ross ............................................... Professor
Alexei N. Safonov .......................................... Assistant Professor
Wayne M. Saslow ............................................ Professor
Hans A. Schuessler ......................................... Professor
Marlan O. Scully ............................................ Distinguished Professor
Ergin Sezgin .................................................. Professor
Jairo Sinova .................................................. Associate Professor
Alexei V. Sokolov .......................................... Associate Professor
Nicholas B. Suntzeff ......................................... Professor
Winfried Teizer ............................................... Associate Professor
David Toback ............................................... Associate Professor
Robert E. Tribble ............................................ Professor
Lifan Wang .................................................. Associate Professor
Robert C. Webb ............................................. Professor
Michael B. Weimer ......................................... Professor
George R. Welch ............................................ Professor
James T. White ............................................... Professor
Wenhao Wu .................................................. Associate Professor
Dave H. Youngblood ........................................ Professor
M. Suhail Zubairy .......................................... Professor

*For the Annual Report, Faculty are defined as tenure and non-tenure track employees who were employed at any time during 2008 (01/01/2008-12/31/2008).
6.1 Professional Activities, 2008

This section contains information, as reported by individual faculty members, encompassing each faculty member’s professional activities for the calendar year 2008.

Subsections of professional activities are defined as follows:

Honors and Awards
▷ All professional honors and awards, both internal and external.

Service Activities
▷ All professional service and leadership roles, including: departmental, college, university, state, national and international.

Teaching
▷ Classes taught during the Spring, Summer and Fall sessions of 2008.
▷ Any missing enrollment numbers were gathered from the Student Information Management System (SIMS) at Texas A&M University.

Research Projects
▷ All research projects, funded and unfunded.
▷ Whenever possible, all research-related employees of that faculty member are listed along with the citation. Key for employees: (P)=Postdoc, (G)=Graduate Student, (U)=Undergraduate Student.
▷ Renewals are marked by “(REN)” at the beginning of their title.
▷ Unfunded grants are marked by “(UNFUNDED)” at the end of the citation.
▷ Additional information (including PIs, CoPIs, and funding) on all funded grants are listed in Section 6.

Presentations
▷ All posters, invited and contributed lectures (plenary, conferences, colloquia, seminars, etc.).
▷ Whenever reported, posters, invited and contributed lectures are noted in parentheses following the citation.
▷ Citations are in chronological order.

Publications
▷ All printed materials published during 2008.
▷ Pre-press, in-press and submitted publications were not included.
▷ Citations were formatted in APA Style and are in alphabetical order by lead author.
• SERVICE DURING 2008

International
▷ Event: Finkel’stein Seminar (Organizer), Laplacian Growth and Related Topics Workshop (Co-Organizer), Unconventional Phases and Phase Transitions in Strongly Correlated Electron Systems Workshop (Organizer)
▷ Editorial/Board: Various International Journals (Referee: Journals)

National
▷ Event: Mathematical Aspects of Laplacian Growth Workshop (Organizer)

Department
▷ Event: Condensed Matter Lunch (Organizer), Condensed Matter Seminar (Organizer), Physics Festival (Contributor)

• TEACHING ASSIGNMENTS DURING 2008

Spring
▷ PHYS 202. — College Physics (total enrollment: 70)

Fall
▷ PHYS 208. — Electricity and Optics (total enrollment: 150)

• RESEARCH PROJECTS DURING 2008

Federal
▷ Laplacian Growth, Stochasticsity, and Selection, National Science Foundation

Private
▷ Quantum Coherent Synthesis and Decomposition, The Robert A. Welch Foundation

• PRESENTATIONS DURING 2008

▷ “Mathematical Aspects of Laplacian Growth,” Workshop, Chicago, IL, January, 2008.(Individual)
▷ “Laplacian Growth,” University of South Florida, Tampa, FL, November, 2008.(Individual)

• PUBLICATIONS DURING 2008

• SERVICE DURING 2008

National
▷ Professional Affiliation: NCAA Faculty (Athletic Representative)
▷ Committee/Panel: NCAA Academic/Eligibility/Compliance Cabinet (Member), NCAA Continuing Eligibility Sub-Committee of Cabinet (Chair)

University
▷ Service Position: Texas A&M University President on Intercollegiate Athletics (Advisor)
▷ Committee/Panel: Athletic Compliance Committee (Member), Athletic Council (Member), Athletic Department Senior Administration Committee (Member), Big 12 Faculty (Athletic Representative)

• TEACHING ASSIGNMENTS DURING 2008

Spring
▷ PHYS 222 — Modern Physics for Engineers (total enrollment: 120)

Fall
▷ PHYS 208 — Electricity and Optics (total enrollment: 120)
• ADDITIONAL UNIVERSITY TITLES HELD DURING 2008
  ▶ Member, Interdisciplinary Faculty, Materials Science and Engineering, [2006]

• SERVICE DURING 2008
  Department
  ▶ Event: Low Temperature Demonstration for Aggieland Saturday (Presenter), Low Temperature Demonstration for Chemistry Open House (Presenter), Low Temperature Demonstrations for Physics Festival (Presenter)
  ▶ Committee/Panel: New Building Committee (Member), Undergraduate Curriculum Committee (Chair)

• TEACHING ASSIGNMENTS DURING 2008
  Spring
  ▶ PHYS 412. — Quantum Mechanics I (total enrollment: 30)
  ▶ PHYS 691. — Research (total enrollment: 2)
  Summer
  ▶ PHYS 691. — Research (total enrollment: 2)
  Fall
  ▶ PHYS 414. — Quantum Mechanics II (total enrollment: 20)
  ▶ PHYS 485. — Directed Studies (total enrollment: 2)
  ▶ PHYS 691. — Research (total enrollment: 1)
• ADDITIONAL UNIVERSITY TITLES HELD DURING 2008
  ▶ Member, Interdisciplinary Faculty, Materials Science and Engineering, [2006/]

• SERVICE DURING 2008
  National

  State
  ▶ Event: Spring and Fall Executive Committee meetings of the Texas Section of the American Physical Society (Representative)
  ▶ Committee/Panel: Texas APS Executive Committee (Member)

  Department
  ▶ Event: Physics Festival (Organizer)
  ▶ Committee/Panel: New Buildings Committee (Member), Performance Evaluation Committee (Chair), Promotions, Tenure, and Appointments Committee (Chair)

• TEACHING ASSIGNMENTS DURING 2008
  Spring
  ▶ PHYS 307.(H) — Observational Astronomy (total enrollment: 8)
  ▶ PHYS 691. — Research (total enrollment: 1)

  Summer
  ▶ PHYS 222. — Modern Physics for Engineers (total enrollment: 13)
  ▶ PHYS 485. — Directed Studies (total enrollment: 1)
  ▶ PHYS 691. — Research (total enrollment: 1)

  Fall
  ▶ ASTR 101 — Basic Astronomy (total enrollment: 15)
  ▶ PHYS 606. — Quantum Mechanics (total enrollment: 19)
  ▶ PHYS 691. — Research (total enrollment: 1)

• RESEARCH PROJECTS DURING 2008
  Private
  ▶ Response of Materials and Biological Molecules to Light, *The Robert A. Welch Foundation*, coworkers: Z. Lin (P), X. Zhou (P), M. Gao (G), C. Jiang (G), R. Mai (U)

• PRESENTATIONS DURING 2008

604 2008 PHYSICS ANNUAL REPORT
“Supersymmetric SO(N) from a Planck-scale Statistical Theory,” Workshop on Standard Model and Beyond in the LHC Era, Valparaiso, Chile, January, 2008. (Invited)

“Semiclassical Electron-Radiation-Ion Dynamics: Past Successes and Future Extensions,” Spring Meeting of the Texas Section of APS, Corpus Christi, TX, March, 2008. (Individual)


“Coupling of Electrons to the Electromagnetic Field in a Localized Basis,” Fall Meeting of the Texas Section of APS, El Paso, TX, October, 2008. (Individual)

• PUBLICATIONS DURING 2008


• CHAIRS/PROFESSORSHIPS
  ▶ Hershel E. Burgess Chair in Physics (High Energy Physics) [1997]

• PRESENTATIONS DURING 2008
  ▶ “Determining the Dark Matter Content at the LHC,” Institute for Particle Physics Phenomenology, Durham, United Kingdom, June, 2008. (Invited)
  ▶ “Measurement of Dark Matter Relic Density in the mSUGRA Co-annihilation Region at the LHC,” 16th International Conference on Supersymmetry and the Unification of Fundamental Interactions (SUSY2008), Seoul, Korea, June, 2008. (Invited)
  ▶ “Measurement of Dark Matter Content at the LHC,” Alba Nova University, Stockholm, Sweden, August, 2008. (Invited)

• PUBLICATIONS DURING 2008
• CHAIRS/PROFESSORSHIPS
  ▶ Presidential Professor for Teaching Excellence [2003]
  ▶ Thamann University Professorship in Undergraduate Teaching Excellence [2004]

• ADDITIONAL UNIVERSITY TITLES HELD DURING 2008
  ▶ Undergraduate Advisor, Physics Undergraduate Advising Office, Physics, [2007]

• SERVICE DURING 2008

  State
  ▶ Event: Physics Lab Section, Physics Olympiad (Coordinator)

  University
  ▶ Committee/Panel: Discrimination Appeals Panel (Member), Executive Committee, Center for Teaching Excellence (Member), Vice President for Student Affairs (Advisory Committee)

  College
  ▶ Committee/Panel: College Quality Enhancement Plan Council (Member), Undergraduate Curriculum Committee (Member)

  Department
  ▶ Service Position: STEPS Physics 208 Lecture Sections (Coordinator), STEPS Physics 218 Lecture Sections (Coordinator), Teaching Assignments (Coordinator)
  ▶ Committee/Panel: Teaching Evaluation Committee (Chair), Undergraduate Curriculum Committee (Chair)

• TEACHING ASSIGNMENTS DURING 2008

  Spring
  ▶ PHYS 101. — Topics in Contemporary Physics (total enrollment: 15)
  ▶ PHYS 208. — Electricity and Optics (total enrollment: 200)

  Fall
  ▶ PHYS 101. — Topics in Contemporary Physics (total enrollment: 50)
  ▶ PHYS 218. — Mechanics (total enrollment: 200)

• RESEARCH PROJECTS DURING 2008

  Federal
  ▶ TAMU STEPS: Physics, Engineering, and Mathematics (PEM) Model, National Science Foundation

• PRESENTATIONS DURING 2008
“Physics the Old Fashioned Way,” American Association of Physics Teachers, College Station, TX, July, 2008. (Contributed)
KATRIN BECKER
PROFESSOR (979) 458-4548
PHYS-String Theory and High Energy Physics kbecker@physics.tamu.edu

• SERVICE DURING 2008
  Department
  ▷ Committee/Panel: Promotions, Tenure, and Appointments Committee (Member)

• TEACHING ASSIGNMENTS DURING 2008
  Spring
  ▷ PHYS 689. — Special Topics in (total enrollment: 5)
  ▷ PHYS 691. — Research (total enrollment: 2)
  Summer
  ▷ PHYS 691. — Research (total enrollment: 2)
  Fall
  ▷ PHYS 615. — Methods of Theoretical Physics I (total enrollment: 26)
  ▷ PHYS 691. — Research (total enrollment: 2)

• RESEARCH PROJECTS DURING 2008
  Federal
  ▷ Strings, Branes, and the Search for Unification, National Science Foundation

• PUBLICATIONS DURING 2008

No report received from faculty member.
MELANIE BECKER

PROFESSOR (979) 764-9395
PHYS-High Energy Physics/String Theory mbecker@physics.tamu.edu

• SERVICE DURING 2008

National

Department
▷ Committee/Panel: Qualifier Committee (Member)

• TEACHING ASSIGNMENTS DURING 2008

Spring
▷ PHYS 689. — Special Topics in (total enrollment: 8)

Summer
▷ PHYS 691. — Research (total enrollment: 3)

Fall
▷ PHYS 202. — College Physics (total enrollment: 61)
▷ PHYS 689. — Special Topics in (total enrollment: 5)
▷ PHYS 691. — Research (total enrollment: 2)

• RESEARCH PROJECTS DURING 2008

Federal
▷ Flux Compactification of M-Theory, Cosmology, and the Standard Model of Elementary Particles, National Science Foundation
▷ Strings, Branes, and the Search for Unification, National Science Foundation

• PUBLICATIONS DURING 2008


No report received from faculty member.
• SERVICE DURING 2008

International
▷ Event: Annual International Conferences Novel In-Plane Semiconductor Lasers (Organizer)
▷ Advisory Board: International Advisory Board, Nizhny Novgorod State Planetarium (Member)

National

Regional
▷ Event: A&M Consolidated Middle School (Lecturer), Science and Technology Night at Southwood Valley Elementary School (Organizer), Society for Hispanic Professional Engineers (Lecturer)

Department
▷ Event: Chemistry Open House (Presenter), College of Science Barbeque (Demonstration Coordinator), Physics Camp Youth Adventure Program for Gifted Children (Lecturer), Physics Camp Youth Adventure Program for Gifted Children (Demonstration Coordinator), Physics Festival (Presenter)
▷ Committee/Panel: Advisory Committee (Member), AMO Search Theory Committee (Member), Astronomy Committee (Member)

• TEACHING ASSIGNMENTS DURING 2008

Spring
▷ PHYS 689. — Special Topics in (total enrollment: 5)
▷ PHYS 691. — Research (total enrollment: 4)

Summer
▷ PHYS 685. — Directed Studies (total enrollment: 1)
▷ PHYS 691. — Research (total enrollment: 3)

Fall
▷ PHYS 218. — Mechanics (total enrollment: 90)
▷ PHYS 685. — Directed Studies (total enrollment: 1)
▷ PHYS 691. — Research (total enrollment: 3)

• RESEARCH PROJECTS DURING 2008
Federal

▷ New Mid/Far-Infrared CW Room-Temperature Semiconductor Lasers Based on Intralaser Wave-Mixing Technique, *Air Force Office of Scientific Research*

▷ New Widely Tunable Room Temperature Terahertz Coherent Sources, *Air Force Office of Scientific Research*, coworkers: F. Xie (G)

▷ CAREER: Active Integrated Nanostructure Devices for Infrared Photonics and Femtosecond Pulse Generation, *National Science Foundation*, coworkers: A. Wojcik (P), Y. Cho (G), D. Smith (G), F. Xie (G)

▷ Engineering Research Center: Mid-Infrared Technologies for Health and the Environment, *National Science Foundation*, coworkers: F. Xie (G)

▷ New Types of Mid/Far-Infrared Semiconductor Lasers for CW Room-Temperature Operations, *National Science Foundation*


• PRESENTATIONS DURING 2008

▷ “Mid/Far-Infrared Photodetection Based on Resonant Frequency Up-Conversion in Coupled Quantum Wells,” Photonics West’08, San Jose, CA, January, 2008. (Contributed)

▷ “Mid/Far-Infrared Photodetectors Based on Quantum Coherence in Coupled Quantum Wells,” 38th Winter Colloquium on the Physics of Quantum Electronics, Snowbird, UT, January, 2008. (Invited)

▷ “Resonant Nonlinear Optics in Coupled Quantum Wells: From Lasers to Detectors,” Annual Texas A&M University Symposium, College Station, TX, January, 2008. (Invited)


▷ “Electron States, Transport, and Coherent Optical Phenomena in Semiconductor Nanostructures,” Department of Mathematics, Texas A&M University, College Station, TX, April, 2008. (Individual)

▷ “Coherent Coupling of Multiple Transverse Modes in a Quantum Cascade Laser,” International Conference CLEO/QELS, May, 2008. (Contributed)

▷ “Microwatt-Level Terahertz Sources Based on Intra-Cavity Difference-Frequency Generation in Mid-Infrared Quantum Cascade Lasers,” International Conference CLEO/QELS, May, 2008. (Contributed)

▷ “Introduction to Nanophotonics,” Tokyo University, Tokyo, Japan, June, 2008. (Individual)

▷ “Nanophotonics and Plasmonics,” Tokyo University, Tokyo, Japan, June, 2008. (Individual)

▷ “Quantum Coherence Phenomena in Semiconductor Nanostructures,” University of Barcelona, Barcelona, Spain, June, 2008. (Individual)
“Time-Resolved Studies of InGaAs/GaAs Quantum Wells in High Magnetic Fields,” XVI International Conference on Ultrafast Phenomena UPP’08, Stresa, Italy, June, 2008. (Contributed)


- PUBLICATIONS DURING 2008


RONALD A. BRYAN

PROFESSOR (979) 845-5636
PHYS-High Energy - Theoretical bryan@physics.tamu.edu

• SERVICE DURING 2008
  National
    ▶ Editorial/Board: The Physics Teacher, Journal of Scientific Exploration (Referee: Journals)
  Department
    ▶ Committee/Panel: Awards Committee (Member)

• TEACHING ASSIGNMENTS DURING 2008
  Spring
    ▶ PHYS 309. — Modern Physics (total enrollment: 27)

• PRESENTATIONS DURING 2008
  ▶ “Intention Experiment Utilizing a Paul ion Trap,” D. Church’s Seminar, January, 2008. (Individual)

• PUBLICATIONS DURING 2008

On leave.
• ADDITIONAL UNIVERSITY TITLES HELD DURING 2008
  ➢ Undergraduate Advisor, Physics, []

• SERVICE DURING 2008

  International
  ➢ Committee/Panel: Feenberg Medal Selection Committee (Chair), International Conference Series, Recent Progress in Many-Body Theories” and Awarding the Feenberg Medal for Outstanding Contribution to Many-Body Theory (Member)

  National

  University
  ➢ Service Position: Hong Kong Students Association (Advisor)

  College
  ➢ Committee/Panel: Information Technology Committee (Member)

  Department
  ➢ Event: Physics Festival (Participant)
  ➢ Committee/Panel: Undergraduate Curriculum Committee (Member)

• TEACHING ASSIGNMENTS DURING 2008

  Spring
  ➢ PHYS 401. — Computational Physics (total enrollment: 11)
  ➢ PHYS 619. — Modern Computational Physics (total enrollment: 13)
  ➢ PHYS 685. — Directed Studies (total enrollment: 1)
  ➢ PHYS 691. — Research (total enrollment: 1)

  Summer
  ➢ PHYS 222. — Modern Physics for Engineers (total enrollment: 6)
  ➢ PHYS 685. — Directed Studies (total enrollment: 1)
  ➢ PHYS 691. — Research (total enrollment: 1)

  Fall
  ➢ PHYS 201. — College Physics (total enrollment: 192)
  ➢ PHYS 691. — Research (total enrollment: 1)

• RESEARCH PROJECTS DURING 2008
Federal
  ▶ Hamiltonian Lattice Gauge Method of Propagating Electromagnetic Waves, *National Science Foundation*

- **PUBLICATIONS DURING 2008**
• SERVICE DURING 2008

National
▶ Committee/Panel: Physics Nobel Prize Committee (Nominating Committee)

Department
▶ Event: Spring Physics Fair (Contributor)
▶ Committee/Panel: Awards Committee (Chair)

• TEACHING ASSIGNMENTS DURING 2008

Spring
▶ PHYS 309 — Modern Physics (total enrollment: 30)
▶ PHYS 689. — Special Topics in (total enrollment: 6)

Fall
▶ PHYS 222. — Modern Physics for Engineers (total enrollment: 35)

• RESEARCH PROJECTS DURING 2008

Federal
▶ (REN) Spectroscopy and Collisions of Stored, Cold, Highly Charged Ions, National Science Foundation, coworkers: S. Stahl (Research Scientist), S. Anthanurthy (P), H. Ulmer (G)

• PRESENTATIONS DURING 2008
▶ “Electron Capture by Highly Charged Ions Using Retrap,” Workshop of Spectrap Group; GSI, Darmstad, Germany, July, 2008. (Contributed)
No report received from faculty member.
- **CHAIRS/PROFESSORSHIPS**
  - Rachal/Mitchell/Heep Endowed Professorship in Physics [2008]

- **SERVICE DURING 2008**
  - **International**
    - Editorial/Board: Research Proposals for the Korean Government (Review: Proposals)
  - **National**
    - Editorial/Board: National Science Foundation (Review: Proposals)
  - **Department**
    - Committee/Panel: Graduate Admissions Committee (Member), Graduate Curriculum Committee (Member), Promotion, Tenure, and Awards Committee (Chair)

- **PUBLICATIONS DURING 2008**


Hired 06/01/2008.
NELSON M. DULLER
PROFESSOR (979) 845-5067
PHYS-Nucl. Magnetic Resonance; Applied Phys. duller@physics.tamu.edu

• SERVICE DURING 2008

  Department
  ▶ Service Position: Undergraduate Advisor (Advisor)
  ▶ Committee/Panel: Astronomy Committee (Member), Undergraduate Curriculum Committee (Member)

• TEACHING ASSIGNMENTS DURING 2008

  Spring
  ▶ PHYS 225. — Electronic Circuits and Applications (total enrollment: 24)

  Fall
  ▶ PHYS 426. — Physics Laboratory (total enrollment: 19)

Retired 12/31/2008.

No report received from faculty member.
BHASKAR DUTTA

ASSOCIATE PROFESSOR
PHYS-High Energy Physics (Theory)

• SERVICE DURING 2008

International

▷ Event: International Workshop on Interconnection Between Particle Physics and Cosmology (Co-Organizer)

National

▷ Editorial/Board: Physical Letters B (Referee: Journals), Physical Review D (Referee: Journals)

Department

▷ Event: Physics Festival (Participant)
▷ Committee/Panel: Graduate Admission Committee (Member), HEP Hiring Committee (Member), Undergraduate Curriculum Committee (Member)

• TEACHING ASSIGNMENTS DURING 2008

Spring

▷ PHYS 485. — Directed Studies (total enrollment: 2)
▷ PHYS 491. — Research (total enrollment: 2)
▷ PHYS 634. — Relativistic Quantum Field Theory (total enrollment: 11)
▷ PHYS 691. — Research (total enrollment: 2)

Summer

▷ PHYS 691. — Research (total enrollment: 2)

Fall

▷ PHYS 638. — Quantum Field Theory II (total enrollment: 6)
▷ PHYS 691. — Research (total enrollment: 2)

• RESEARCH PROJECTS DURING 2008

Federal

▷ GAANN(Graduate Assistance in the Areas of National Need), Department of Education, coworkers: Y. Mimura (P), S. Campbel (G), A. Gurrola (G), A. Krislock (G), P. Truong (U)
▷ High Energy Physics at Texas A&M, Department of Energy
▷ High Energy Physics at Texas A&M, Department of Energy

• PRESENTATIONS DURING 2008

“23% of the Universe at the Large Hadron Collider,” Texas Tech University, Lubbock, TX, March, 2008. (Individual)

“So(10) Model, Flavor Violation and Proton Decay,” University of New Mexico, Albuquerque, NM, March, 2008. (Individual)

“In Search of a Cosmological Connection,” Collider Detector at Fermilab, April, 2008. (Invited)

“Determining the of Dark Matter Content at the LHC,” University of Durham, Durham, United Kingdom, June, 2008. (Individual)


“Precision Cosmology at the LHC,” Cosmo 2008, Madison, WI, August, 2008. (Invited)

“Cosmology in the Focus Point Region at the Large Hadron Collider,” Texas American Physical Society, October, 2008. (Graduate, A. Krislock)

“Gluino Mass Reconstruction in the Focus Point Region at the LHC,” Texas American Physical Society, October, 2008. (Graduate, M. Van Dyke)

• PUBLICATIONS DURING 2008


• AWARDS DURING 2008
  University
  ▷ Student Led Award - Teaching Excellence, Texas A&M University

• SERVICE DURING 2008
  Regional
  ▷ Event: Physics Camp for the Youth Adventure Program (Organizer)

  University
  ▷ Committee/Panel: Dean of Geosciences Search Committee (Member)

  Department
  ▷ Service Position: LEEP Program (Instructor)
  ▷ Event: 15 Physics Shows (Demonstration Coordinator), Chemistry Open House and Science Exploration Gallery (Organizer), Physics Festival (Organizer)

• TEACHING ASSIGNMENTS DURING 2008
  Spring
  ▷ PHYS 208. — Electricity and Optics (total enrollment: 100)

  Fall
  ▷ PHYS 218. — Mechanics (total enrollment: 82)
• SERVICE DURING 2008
  
  International
  ▶ Editorial/Board: Various International Journals (Referee: Journals)

Department
  ▶ Event: Condensed Matter Seminars (Organizer), Random Matrices and Integrability: From Theory to Applications (Organizer)

• TEACHING ASSIGNMENTS DURING 2008
  
  Spring
  ▶ PHYS 689. — Special Topics in (total enrollment: 5)

  Fall
  ▶ PHYS 617. — Physics of the Solid State (total enrollment: 17)

• PRESENTATIONS DURING 2008
  
  ▶ “Metal-Insulator Transition in Disordered Two-Dimensional Fermi Liquid,” Department of Physics, Texas A&M University, College Station, TX, March, 2008. (Individual)
  ▶ “Metal-Insulator Transition in Disordered Two-Dimensional Fermi Liquid,” Landau Memorial Conference, Chernogolovka, Russia, June, 2008. (Invited)
  ▶ “Spintronics without Magnets: Spin-Optics,” University Tor Vergata, Rome, Italy, July, 2008. (Invited)
  ▶ “Fluctuations of the Superconducting Order Parameter as an Origin of the Nernst Effect,” Symposium on Theoretical Physics, Rehovot, Israel, November, 2008. (Invited)
  ▶ “Metal-Insulator Transition in Disordered Two-Dimensional Fermi Liquid,” Institute of the Theoretical Physics, University of British Columbia, Vancouver, BC Canada, December, 2008. (Individual)

Hired 01/16/2008.
A. LEWIS FORD

PROFESSOR (979) 845-3337
PHYS-Atomic ford@physics.tamu.edu

- **ADDITIONAL UNIVERSITY TITLES HELD DURING 2008**
  - Associate Department Head, Physics, [1993]

- **SERVICE DURING 2008**
  
  **State**
  - Committee/Panel: Executive Committee of Texas Section APS (Member)
  
  **College**
  - Event: Junior Science Bowl and Science Bowl (Reviewer)
  - Ad Hoc Committee: STEP Grant Administration Committee (Member)
  - Committee/Panel: College Quality Enhancement Plan Council (Member), Qatar Advisory Committee (Member), Teaching Lab Safety Committee (Member), Teaching Lab Safety Committee (Member)
  
  **Department**
  - Event: Physics Festivals (Participant)
  - Editorial/Board: Academic Program Review Self-Study (Editor)
  - Committee/Panel: AMO Search Committee (Member), Graduate Credentials and Records Committee (Chair), Long Range Planning Committee (Member)

- **TEACHING ASSIGNMENTS DURING 2008**
  
  **Spring**
  - PHYS 202. — **College Physics** (total enrollment: 102)
  - PHYS 285. — **Directed Studies** (total enrollment: 4)
  
  **Summer**
  - PHYS 285. — **Directed Studies** (total enrollment: 1)
  
  **Fall**
  - PHYS 201. — **College Physics** (total enrollment: 244)
  - PHYS 285. — **Directed Studies** (total enrollment: 7)

- **PUBLICATIONS DURING 2008**


• AWARDS DURING 2008

University
▷ Montague Scholar - Teaching Excellence, Center for Teaching Excellence

• SERVICE DURING 2008

National
▷ Committee/Panel: Department of Energy Review Panel of RHIC Groups at National Laboratories (Member)

Department
▷ Event: Cyclotron Institute REU Program (Mentor), Saturday Morning Physics (Speaker)

• TEACHING ASSIGNMENTS DURING 2008

Spring
▷ PHYS 218. — Mechanics (total enrollment: 61)

Summer
▷ PHYS 691. — Research (total enrollment: 1)

• PRESENTATIONS DURING 2008

▷ “Bulk Viscosity in Nuclear Collisions,” RIKEN Workshop Hydrodynamics in Heavy Ion Collisions and QCD Equation of State, Brookhaven National Laboratory, Upton, NY, April, 2008. (Individual)
▷ “Selected Topics in Heavy Ion Physics: A Biased Assessment,” STAR Collaboration Meeting, University of California, Davis, Davis, CA, June, 2008. (Invited)
▷ “Flavor as a QGP Probe at High $p_T$,” PHENIX Collaboration Meeting, UI Urbana-Champaign, Urbana, IL, July, 2008. (Invited)
“Stress Tensor, Bulk Viscosity and Entropy Production,” Workshop Entropy Production before QGP, Yukawa Institute, Kyoto, Japan, August, 2008. (Invited)


“Direct Photons in Heavy Ion Collisions,” Tamura Symposium, University of Texas, Austin, TX, November, 2008. (Invited)

**PUBLICATIONS DURING 2008**

EDWARD S. FRY

PROFESSOR (979) 845-7717
PHYS-Atomic, Quantum Optics fry@physics.tamu.edu

- CHAIRS/PROFESSORSHIPS
  - George P. Mitchell '40 Chair in Experimental Physics /2005/

- ADDITIONAL UNIVERSITY TITLES HELD DURING 2008
  - Department Head, Physics, /2002/

- SERVICE DURING 2008
  - College
    - Committee/Panel: Executive Committee (Member)

- TEACHING ASSIGNMENTS DURING 2008
  - Spring
    - PHYS 691. — Research (total enrollment: 5)
  - Summer
    - PHYS 691. — Research (total enrollment: 4)
  - Fall
    - PHYS 691. — Research (total enrollment: 3)

- RESEARCH PROJECTS DURING 2008
  - Federal
    - Bioaerosol Sampling and Collection: Optics and Forward Scattering by Aerosols, U.S. Army, coworkers: J. Musser (P), M. Cone (G)
    - Bioaerosol Sampling and Collection: Optics and Forward Scattering by Sampling and Collection, U.S. Army, coworkers: J. Musser (P), M. Cone (G)
    - Devices for Effective Sampling of Bioaerosol, U.S. Army, coworkers: J. Musser (P), M. Cone (G)
  - Private
    - Mercury Dimer Spectroscopy and a New Integrating Cavity Spectroscopic Tool, The Robert A. Welch Foundation, coworkers: D. Haubrich (G), X. Qu (G), J. Gomez (U)

- PRESENTATIONS DURING 2008
  - “Integrating Optical Cavity,” Texas A&M University Physics of Quantum Electronics Symposium, College Station, TX, January, 2008. (Invited)
Scientific Conference on Obscuration and Aerosol Research, Aberdeen, MD, June, 2008. (Invited)

▷ “Our Physics Department,” Texas A&M REU Program, Cyclotron Institute, College Station, TX, July, 2008. (Individual)

▷ “An Instrument to Measure \( bb \) for Arbitrary Phase Functions,” Ocean Optics XIX; Il Ciocco Hotel, Barga, Italy, October, 2008. (Contributed)

▷ “Optical Absorption Coefficient of Pure Water in the UV,” Ocean Optics XIX; Il Ciocco Hotel, Barga, Italy, October, 2008. (Contributed)


• PUBLICATIONS DURING 2008

▷ Koperski, J.; Qu, X.; Meng, H.; Kenefick, R.; Fry, E.S. (2008) Rotational Analysis of the \((57,0)\) Band of the \( D_{1u} \leftarrow X_{0^+} \) Triplet-Singlet Transition in \( Hg_2 \) Produced in a Free-Jet Expansion Beam Chemical Physics, vol. 348, 103-112.

• AWARDS DURING 2008

  National
  ▶ Deputy Spokesperson, STAR Collaboration

• SERVICE DURING 2008

  National
  ▶ Committee/Panel: BNL/DOE Annual Review of the PHENIX Forward Silicon Vertex Tracker (Panel Member), RHIC & AGS Users Group Executive Committee (Member), STAR Advisory Board (Member), STAR Tigger Board, Fall (Chair), STAR Trigger Board, Spring (Member)

  College
  ▶ Committee/Panel: Information Technology Committee (Member)

  Department
  ▶ Ad Hoc Committee: Bylaws Committee (Member)
  ▶ Committee/Panel: Cyclotron Institute Computer Committee (Chair), Cyclotron Institute Safety Committee (Member), Experimental Nuclear Chemistry Faculty Search (Member), Promotion, Tenure, and Appointments Committee (Member)

• TEACHING ASSIGNMENTS DURING 2008

  Spring
  ▶ PHYS 691. — Research (total enrollment: 2)

  Summer
  ▶ PHYS 691. — Research (total enrollment: 2)

  Fall
  ▶ PHYS 221. — Optics and Thermal Physics (total enrollment: 34)
  ▶ PHYS 691. — Research (total enrollment: 2)

• RESEARCH PROJECTS DURING 2008

  Federal
  ▶ Cyclotron-Based Nuclear Science, Department of Energy
  ▶ (REN) QCD and Standard Model Studies, Department of Energy, coworkers: P. Djawotho (P), J. Drachenberg (G), L. Huo (G)
  ▶ QCD and Standard Model Studies, Department of Energy, coworkers: P. Djawotho (P), M. Sarsour (P), J. Drachenberg (G), L. Huo (G)
Development of New Techniques to Determine Neutron and Charged-Particle Induced Reaction Rates, National Nuclear Security Administration

Private

- (REN) Asymptotic Normalization Co-Efficients in Nuclear Astrophysics, The Robert A. Welch Foundation, coworkers: A. Banu (P), E. Simmons (G)
- Asymptotic Normalization Co-Efficients in Nuclear Astrophysics, The Robert A. Welch Foundation, coworkers: A. Banu (P)

• PRESENTATIONS DURING 2008

- “Constraints on Gluon Polarization in the Proton from STAR Data,” Physics Department, Georgia State University, Atlanta, GA, February, 2008.( Postdoc)
- “Breakup of Proton-rich Nuclei $^{24}$Si, $^{23}$Al, $^{22}$Mg, $^{21}$Na at Intermediate Energies for Reaction Rates in Explosive H-burning in Novae,” 10th Symp. Nucl. Cosmos, Mackinac Island, MI, July, 2008.( Postdoc)
- “Nuclear Astrophysics at Texas A&M,” Workshop on Experiments with Reaccelerated Beams at NSCL, East Lansing, MI, August, 2008.( Postdoc)
- “π0 Transverse Single-Spin Asymmetries ($A_N$) at $\eta = 4.1$ in p+p Collisions at $\sqrt{s} = 200$ GeV,” 18th International Symposium on Spin Physics (SPIN2008), Charlottesville, VA, October, 2008.( Graduate)
- “Spin Physics at RHIC,” Physics Department, University of Illinois, Chicago, IL, October, 2008.( Individual)

• PUBLICATIONS DURING 2008

- Abelev, B.I.; et al. (2008) Spin Alignment Measurements of the $K^{0*}(892)$ and $\phi(1020)$ Vector Mesons at $\sqrt{s}_{NN} = 200$ GeV Physical Review C: Nuclear Physics, vol. 77, 061902.
- Abelev, B.I.; et al. (2008) $\rho^0$ Photoproduction in Ultraperipheral Relativistic Heavy Ion Collisions at $\sqrt{s}_{NN} = 200$ GeV Physical Review C: Nuclear Physics, vol. 77, 034910.


SEC. 6.1 PROFESSIONAL ACTIVITIES 635
• SERVICE DURING 2008

International

▶ Committee/Panel: International Advisory Committee, ENAM08 (Member), Natural Sciences and Engineering Research Council (NSERC) (Member), TIGRESS Review Committee (Member)

National

▶ Event: National Science Foundation Research Experience for Undergraduates Program (Participant)
▶ Committee/Panel: Program Advisory Committee, ATLAS Facility, Argonne National Laboratory (Member), Science Policy Committee, Hollifield Lab, Oak Ridge National Lab (Member)

Regional

▶ Committee/Panel: Jefferson Science Associates Committee (Member)

University

▶ Committee/Panel: Ad hoc Committees (Member), Reactor Safety Board (Member)

Department

▶ Event: Saturday Morning Physics (Lecturer)
▶ Committee/Panel: Advisory Committee (Chair), Distinguished Professor Committee (Member), Graduate Student Advisors (Member)

• TEACHING ASSIGNMENTS DURING 2008

Spring

▶ PHYS 208.506-510 — *Electricity and Optics* (total enrollment: 125)
▶ PHYS 208.516-520 — *Electricity and Optics* (total enrollment: 125)
▶ PHYS 691. — *Research* (total enrollment: 1)

Summer

▶ PHYS 691. — *Research* (total enrollment: 1)

Fall

▶ PHYS 691. — *Research* (total enrollment: 1)

• RESEARCH PROJECTS DURING 2008
Federal
▷ Cyclotron-Based Nuclear Science, Department of Energy
▷ (REN) Nuclear Structure Evaluations for ENSDF, Department of Energy

Private
▷ (REN) Nuclear Decay Studies, The Robert A. Welch Foundation, coworkers: V. Golovko (P), V. Iacob (P), N. Nica (P), J. Nolen (P), I. Towner (P), J. Goodwin (G), N. Nica (G), H. Park (G)

• PRESENTATIONS DURING 2008
▷ “The Weak Force: Dancing to it’s Own Tune,” Saturday Morning Physics at Texas A&M, College Station, TX, January, 2008. (Individual)
▷ “Improved $\beta$ Decay Branching Ratios,” American Physical Society Meetings, St Louis, MO, April, 2008. (Contributed)
▷ “Monte Carlo Studies of $\beta$ Detector Efficiency with Geant4 for precise $\beta^+$ Branching-Ratio Experiments,” American Physical Society Meetings, St Louis, MO, April, 2008. (Contributed)
▷ “How Idiosyncratic is the Weak Force?,” Cyclotron Institute, College Station, TX, July, 2008. (Individual)
▷ “Scaling the Heights of the N=Z Line above $^{56}Ni,” European Center for Theoretical Studies in Nuclear Physics and Related Areas (ECT*), Trento, Italy, September, 2008. (Invited)
▷ “Superallowed 0+ $\rightarrow$ 0+ Beta Decay and CKM Unitarity: A New Overview and Improved Precision,” Fifth International Conference on Exotic Nuclei and Atomic Masses (ENAM08), Ryn, Poland, September, 2008. (Invited)
▷ “$\beta$-Delayed p-Decay of Proton-Rich Nuclei 23Al and 31Cl and Explosive H-Burning in Novae,” American Physical Society Meetings, Oakland, CA, October, 2008. (Contributed)
▷ “Precise Half Life Measurement of $^{26}Si,” American Physical Society Meetings, Oakland, CA, October, 2008. (Contributed)
▷ “Precise Measurement of $\alpha_K$ for the 346.4 KEV M4 Transition from $^{197}Pt^{m}$: A Test of Internal Conversion Theory,” American Physical Society Meetings, Oakland, CA, October, 2008. (Poster Individual)
• PUBLICATIONS DURING 2008


• ADDITIONAL UNIVERSITY TITLES HELD DURING 2008
  ▷ Professor (J), Chemistry, [2006]

• SERVICE DURING 2008
  National
  ▷ Professional Affiliation: National Academy of Sciences (Member)

• TEACHING ASSIGNMENTS DURING 2008
  Fall
  ▷ PHYS 681. — Seminar (total enrollment: 9)

• RESEARCH PROJECTS DURING 2008
  Federal
  ▷ Chemical Dynamics of Hox Free Radicals and Slow H Atoms, National Science Foundation
  State
  ▷ Producing Ultracold Molecules via Magnetic Traps-on-a-Chip, Texas Higher Education Coordinating Board
  ▷ Toward Matterwave Chemistry, Texas Higher Education Coordinating Board

• PUBLICATIONS DURING 2008

No report received from faculty member.
• SERVICE DURING 2008
  
  International
  ▷ Editorial/Board: Hong Kong Government (Review: Proposals), *Central Europe Journal of Physics* (Referee: Journals)
  
  National
  
  Department
  ▷ Committee/Panel: Distinguished Lecture Series and Colloquium Committee (Chair), Graduate Admission Committee (Member), Graduate Curriculum Committee (Member), Graduate Student Admissions and Appointments Committee (Member), Promotions, Tenure, and Appointments Committee (Member)
  
• TEACHING ASSIGNMENTS DURING 2008
  
  Spring
  ▷ PHYS 631. — Quantum Theory of Solids (total enrollment: 8)
  ▷ PHYS 685. — Directed Studies (total enrollment: 1)
  
  Summer
  ▷ PHYS 491. — Research (total enrollment: 1)
  
  Fall
  ▷ PHYS 221. — Optics and Thermal Physics (total enrollment: 39)
  ▷ PHYS 632. — Condensed Matter Theory (total enrollment: 8)
  
• PUBLICATIONS DURING 2008
TERUKI KAMON

PROFESSOR (979) 845-7740
PHYS-High Energy Physics t-kamon@tamu.edu

• ADDITIONAL UNIVERSITY TITLES HELD DURING 2008
  ▷ Graduate Advisor, Physics Graduate Advising Office, Physics, [2002]

• SERVICE DURING 2008

  International
  ▷ Event: SUSY and New Physics at Terascale Session, International Linear Collider Workshop (Co-Organizer)
  ▷ Editorial/Board: Foreign Funding Agency (Review: Proposals)
  ▷ Committee/Panel: International Scientific Advisory Committee, 3rd International Workshop on the Interconnection between Particle Physics and Cosmology (Member), International Scientific Advisory Committee, The 2nd International Workshop on the Interconnection between Particle Physics and Cosmology (Member)

  National
  ▷ Event: CMS Missing $E_T$ Group (Co-convener)
  ▷ Editorial/Board: Department of Energy (Review: Proposals), Physical Review Letters (Referee: Journals)
  ▷ Committee/Panel: US CMS Jet + Missing Energy Topology Group (Co-convener)

  University
  ▷ Committee/Panel: Texas A&M Reactor Safety Board (Member)

  College
  ▷ Committee/Panel: Technology-Mediated Instruction Committee (Member)

  Department
  ▷ Event: Chemistry Open House (Presenter), Physics Open House (Presenter), Saturday Morning Physics (Speaker), Saturday Morning Physics (Lecturer)
  ▷ Committee/Panel: AMO Experimental Faculty Search (Member), AMO Theory Faculty Search (Member), Graduate Advisor (Chair), Graduate Credentials and Records Committee (Member), Graduate Curriculum Committee (Member), HEP Exp. Faculty Search III (Member), HEP Exp. Faculty Search IV (Member), Promotions, Tenure, and Appointments Committee (Member)

• TEACHING ASSIGNMENTS DURING 2008

  Spring
  ▷ PHYS 202. — College Physics (total enrollment: 68)
  ▷ PHYS 685. — Directed Studies (total enrollment: 1)
  ▷ PHYS 691. — Research (total enrollment: 8)

  Summer
PHYS 691. — Research (total enrollment: 3)

Fall
PHYS 685. — Directed Studies (total enrollment: 3)
PHYS 691. — Research (total enrollment: 22)

• RESEARCH PROJECTS DURING 2008

Federal
PHYS 691. — Research

• PRESENTATIONS DURING 2008

PHYS 691. — Research

• PUBLICATIONS DURING 2008


Aaltonen, T.; et al. (2008) Search for New Heavy Particles Decaying to $Z^0Z^0 \rightarrow eee$ in $p\bar{p}$ Collisions at $\sqrt{s} = 1.96$-TeV Physical Review D: Particles and Fields, vol. 78, 012008.


Aaltonen, T.; et al. (2008) Limits on the Production of Narrow $t\bar{t}$ Resonances in $p\bar{p}$ Collisions at $\sqrt{s} = 1.96$ TeV Physical Review D: Particles and Fields, vol. 77, 051102.


Aaltonen, T.; et al. (2008) Search for $B_s^0 \rightarrow \mu^+\mu^-$ and $B^0 \rightarrow \mu^+\mu^-$ Decays with 2 $fb^{-1}$ of $pp$ Collisions Physical Review Letters, vol. 100, 108202.

Aaltonen, T.; et al. (2008) Search for Pair Production of Scalar Top Quarks Decaying to a $\tau$ Lepton and a $b$ Quark in $p\bar{p}$ Collisions at $\sqrt{s} = 1.96$ TeV Physical Review Letters, vol. 101, 071802.


Aaltonen, T.; et al. (2008) Observation of the Decay $B_s^\pm \rightarrow J/\psi\pi^\pm$ and Measurement of the $B_s^\pm$ Mass Physical Review Letters, vol. 100, 182002.


Aaltonen, T.; et al. (2008) Search for Resonant $t\bar{t}$ Production in $p\bar{p}$ Collisions at $\sqrt{s} = 1.96$ TeV Physical Review Letters, vol. 100, 231801.


• SERVICE DURING 2008

National

Regional
▷ Event: Middle School YAP group (Demonstration Coordinator)

University
▷ Committee/Panel: University Distinguished Lecture Committee (Member)

Department
▷ Event: Chemistry Open House (Participant), Physics Open House (Participant)
▷ Committee/Panel: AMO Search Committee (Member), Computer Committee (Member), Graduate Student Admissions and Appointments Committee (Chair), Long Range Planning Committee (Member)

• TEACHING ASSIGNMENTS DURING 2008

Spring
▷ PHYS 221. — Optics and Thermal Physics (total enrollment: 48)
▷ PHYS 691. — Research (total enrollment: 2)

Summer
▷ PHYS 691. — Research (total enrollment: 6)

Fall
▷ PHYS 218.(H) — Mechanics (total enrollment: 68)
▷ PHYS 691. — Research (total enrollment: 5)

• RESEARCH PROJECTS DURING 2008

Federal
▷ (REN) Ultrashort Laser Pulse Propagation in Water, Department of Defense
▷ Ultrashort Laser Pulse Propagation in Water, Department of Defense, coworkers: J. Byeon (G), L. Naveira (G), J. Wang (G)
▷ Study Dust Optical and Radiative Properties Using Optimal Morphological Sets, National Science Foundation

Theoretical Studies of Radiative Transfer with Inelastic Time-Dependent/Independent Scattering including Both Active and Passive Sources in Realistic Atmosphere-Ocean Systems, *Office of Naval Research*, coworkers: Y. You (G)

**PRESENTATIONS DURING 2008**

- “Skyscapes from Fire Water and Ice,” University of Texas Forum, Austin, TX, April, 2008. (Individual)
- “Radiative Transfer and Light Scattering: From Cradle to Adolescence,” International Radiation Symposium, Foz do Iguacu, Brazil, August, 2008. (Invited)
- “The Everest is There,” Department of Atmospheric Sciences, The University of Arizona, Tucson, AZ, September, 2008. (Individual)
- “The Everlasting Flame,” Department of Atmospheric and Oceanic Sciences, The University of Wisconsin, Madison, WI, September, 2008. (Individual)
- “The Everest is There,” Department of Atmospheric Sciences, The University of Washington, Seattle, WA, October, 2008. (Individual)

**PUBLICATIONS DURING 2008**


• SERVICE DURING 2008

International
  ▶ Event: Strongly Correlated Electrons (Organizer), Topics in the Physics of High Pressure (Organizer)

National
  ▶ Editorial/Board: Solid State Communications (Member)

• TEACHING ASSIGNMENTS DURING 2008

Spring
  ▶ PHYS 648. — Quantum Optics and Laser Physics (total enrollment: 6)
• SERVICE DURING 2008

International
▷ Event: Shanghai Jiao Tong University (Presenter)
▷ Editorial/Board: *International Journal of Modern Physics* (Referee: Journals)

National

Department
▷ Event: Nuclear Physics Program (Presenter)
▷ Committee/Panel: Graduate Student Admissions and Appointments Committee (Member)

• TEACHING ASSIGNMENTS DURING 2008

Spring
▷ PHYS 607. — *Statistical Mechanics* (total enrollment: 9)

Summer
▷ PHYS 685. — *Directed Studies* (total enrollment: 1)

Fall
▷ PHYS 408. — *Thermodynamics and Statistical Mechanics* (total enrollment: 23)

• RESEARCH PROJECTS DURING 2008

Federal
▷ (REN) Theoretical Nuclear Physics, *National Science Foundation*, coworkers: Y. Oh (P)

Private
▷ (REN) Theoretical Studies of Heavy Ion Collisions, *The Robert A. Welch Foundation*, coworkers: J. Xu (P)

• PRESENTATIONS DURING 2008


▷ “Recent Progress and New Challenges in Isospin Physics with Heavy-Ion Reactions,” International Conference on Nuclear Physics and Astrophysics: from Stable Beams to Exotic Nuclei, Cappadocia, Turkey, June, 2008. (Individual)
“Relativistic Heavy Ion Collisions and Hot Dense Matter,” Summer School on Nuclear Collective Dynamics IV, Istanbul, Turkey, June, 2008. (Individual)

“Exotic Particle Production in Relativistic Heavy Ion Collisions,” The International Workshop on QCD Phase Transition and Heavy Ion Collisions, Hefei, China, July, 2008. (Individual)


“Charm as a Probe of QGP,” Eighth International Workshop on Relativistic Aspects of Nuclear Physics, Rio de Janeiro, Brazil, November, 2008. (Individual)

PUBLICATIONS DURING 2008


• SERVICE DURING 2008

**International**
- Editorial/Board: Israel-USA Collaboration Projects and EU Research Cancel (Review: Proposals)

**National**
- Event: 17th International Workshop on Laser Physics (Member), 18th International Workshop on Laser Physics (Member), 39th Winter Colloquium Physics of Quantum Electronics (Organizer), Modern Trends in Laser Physics (Co-Chair), Symposium Coherent Control of the Fundamental Processes in Optics (Chair)
- Committee/Panel: APS Fellowship Committee (Member)

**Department**
- Committee/Panel: AMO Search Committee (Member)

• TEACHING ASSIGNMENTS DURING 2008

**Spring**
- PHYS 691. — Research (total enrollment: 2)

**Summer**
- PHYS 691. — Research (total enrollment: 1)

**Fall**
- PHYS 208. — Electricity and Optics (total enrollment: 205)
- PHYS 691. — Research (total enrollment: 1)

• RESEARCH PROJECTS DURING 2008

**Federal**
- Laser Manipulations of Nuclear Transitions, Air Force Office of Scientific Research
- Atomic and Nuclear Interference Phenomena in Solids, National Science Foundation
- Coherent Control of the Fundamental Optical Processes in Solids via Atomic Interference, U.S. Civilian Research and Development Foundation

• PRESENTATIONS DURING 2008
“Coherent Control of the Refractive Index,” Texas A&M University Physics of Quantum Electronics Symposium, College Station, TX, January, 2008. (Invited)


“Coherent Control of the Atomic Optical and Nuclear Gamma-Ray Transitions in Solids,” Joint Colloquium of the Department of Physics, Harvard University and ITAMP, Cambridge, MA, April, 2008. (Individual)


**PUBLICATIONS DURING 2008**


• SERVICE DURING 2008

National

Department
▷ Committee/Panel: Astronomy/Cosmology Faculty Search Committee (Member), Institute for Quantum Studies Advisory Committee (Member), Nanoscience Faculty Search Committee (Member), Promotion, Tenure, and Appointments Committee (Member), Theoretical AMO Search Committee (Member), Undergraduate Curriculum Committee (Member)

• TEACHING ASSIGNMENTS DURING 2008

Spring
▷ PHYS 218. — Mechanics (total enrollment: 205)
▷ PHYS 685. — Directed Studies (total enrollment: 1)
▷ PHYS 691. — Research (total enrollment: 1)

Summer
▷ PHYS 685. — Directed Studies (total enrollment: 2)
▷ PHYS 691. — Research (total enrollment: 2)

Fall
▷ PHYS 691. — Research (total enrollment: 1)

• RESEARCH PROJECTS DURING 2008

Federal
▷ New Mid/Far-Infrared CW Room-Temperature Semiconductor Lasers Based on Intralaser Wave-Mixing Technique, Air Force Office of Scientific Research, coworkers: K. Dorfman (G)
▷ New Types of Mid/Far-Infrared Semiconductor Lasers for CW Room-Temperature Operations, National Science Foundation, coworkers: K. Dorfman (G)

• PRESENTATIONS DURING 2008
▷ “BEC: Beyond Gibbs and Wick Perturbation Theory,” Texas A&M University Physics of Quantum Electronics Symposium, College Station, TX, January, 2008.( Invited)
“Modern Problems in the Physics of the Universe,” 14th Russian School Nonlinear Waves, Bor, Russia, March, 2008. (Invited)


“Microscopic Mechanism of Phase Transitions,” 17th International Laser Physics Workshop (LPHYS’08), Trondheim, Norway, June, 2008. (Individual)


“Polariton Mode Lasing in a Trap of Bose-Condensate of Indirect Quantum-Well Excitons,” 6th International Conference on Photonics, Devices and Systems (Photonics Prague 2008), Prague, Czech Republic, August, 2008. (Contributed)

“Current Sheets and Filaments in Relativistic Collisionless Plasmas: Exact Solutions for a Broad Class of Particle Distributions,” 50th Annual Meeting of the APS Division of Plasma Physics, Dallas, TX, November, 2008. (Contributed)

• PUBLICATIONS DURING 2008


Kocharovsky, V.V.; Kocharovsky, VI.V.; Martyanov, V.J. (2008) Bulletin of the American Physical Society, Series II; Current Sheets and Filaments in Relativistic Collisionless Plasmas: Exact Solutions for a Broad Class of Particle Distributions 204.


KEVIN KRISCIUNAS

LECTURER
PHYS-Observational Astronomy

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• SERVICE DURING 2008

National
▷ Editorial/Board: National Science Foundation (Review: Proposals)

Department
▷ Event: Summer Science Program (Director)
▷ Committee/Panel: Undergraduate Curriculum Committee (Member)

• TEACHING ASSIGNMENTS DURING 2008

Spring
▷ PHYS 306. — Basic Astronomy (total enrollment: 111)

Fall
▷ ASTR 101 — Basic Astronomy (total enrollment: 163)
▷ PHYS 485. — Directed Studies (total enrollment: 1)

• RESEARCH PROJECTS DURING 2008

Federal
▷ Collaborative Research: Three-Dimensional Simulations of Type Ia Supernovae Constraining Models with Observations, National Science Foundation

• PRESENTATIONS DURING 2008

▷ “Type Ia Supernovae and the Acceleration of the Universe: Results from the ESSENCE Supernova Survey,” First Middle East-Africa Regional Meeting of the International Astronomical Union, Cairo, Egypt, April, 2008.( Invited)
▷ “The Colors of Type II-P Supernovae,” Third Coast Astronomical Society Meeting, Austin, TX, May, 2008.( Contributed)

• PUBLICATIONS DURING 2008


• SERVICE DURING 2008
  
  National

  Department
  ▶ Event: Chemistry Show (Participant), Physics Show (Participant)

• TEACHING ASSIGNMENTS DURING 2008

  Spring
  ▶ PHYS 202. — College Physics (total enrollment: 76)

  Summer
  ▶ PHYS 202. — College Physics (total enrollment: 23)
  ▶ PHYS 685. — Directed Studies (total enrollment: 1)

• RESEARCH PROJECTS DURING 2008

  Federal
  ▶ Emergent Behavior in Magnet-Superconductor Hybrids, Department of Energy, coworkers: K. Kim (P), D. Rathnayaka (P), H. Lee (G), E. Ozmetin (G), Z. Ye (G)
  ▶ Chemical Dynamics of Hox Free Radicals and Slow H Atoms, National Science Foundation

  State
  ▶ Producing Ultracold Molecules via Magnetic Traps-on-a-Chip, Texas Higher Education Coordinating Board, coworkers: V. Krasovitskiy (P), D. Rathnayaka (P), M. Hickey (G), T. Morrison (G)
  ▶ Toward Matterwave Chemistry, Texas Higher Education Coordinating Board, coworkers: D. Rathnayaka (P), L. Sheffield (G)

  Private
  ▶ Chemical Dynamics of Ultracold Molecules and Atomic Hydrogen, The Robert A. Welch Foundation, coworkers: K. Kim (G)

• PRESENTATIONS DURING 2008

  ▶ “Hybrid Magnetic Nanostructures,” Institute of Physics, Kiev, Ukraine, June, 2008. (Invited)
  ▶ “Magnet Superconductor Hybrids,” Institute of Physics, Kiev, Ukraine, June, 2008. (Invited)
  ▶ “Changes in the Crystalline Structure of Electroplated Co Nanowires Induced by Small Template Pore Size,” 57th Conference on Magnetism and Magnetic Materials, Austin, TX, November, 2008. (Individual)
“Strong Increase of Critical Field and Current in Magnet-Superconductor Hybrids,” 57th Conference on Magnetism and Magnetic Materials, Austin, TX, November, 2008. (Poster Individual)

“Strong Spatially Alternating Magnetic Field from Magnetic Nanostructures,” 57th Conference on Magnetism and Magnetic Materials, Austin, TX, November, 2008. (Poster Individual)


PUBLICATIONS DURING 2008

• SERVICE DURING 2008

International
▷ Event: Instituto San Roman High School (Speaker)

National
▷ Editorial/Board: Time Allocation Committee (Review: Proposals)

State
▷ Event: Giant Magellan Telescope Project, Houston Club (Participant)

Department
▷ Event: Chemistry Open House and Science Exploration Gallery (Participant)
▷ Committee/Panel: Astronomy Committee (Member), Graduate Admissions Committee (Member)

• TEACHING ASSIGNMENTS DURING 2008

Summer
▷ PHYS 306. — Basic Astronomy (total enrollment: 25)
▷ PHYS 691. — Research (total enrollment: 1)

Fall
▷ ASTR 101 — Basic Astronomy (total enrollment: 43)
▷ PHYS 485. — Directed Studies (total enrollment: 1)
▷ PHYS 691. — Research (total enrollment: 2)

• RESEARCH PROJECTS DURING 2008

Federal
▷ A Cepheid Distance to the Coma Cluster, Space Telescope Science Institute, coworkers: J. Chavez (G)
▷ SHOES: Supernovae, HO for the Equation of State of Dark Energy, Space Telescope Science Institute, coworkers: A. Pellerin (P), S. Hoffmann (G), A. Bradshaw (U)
▷ Studying Cepheid Systematics in M81: H-band Observations, Space Telescope Science Institute
▷ The Role of Stellar Feedback in Galaxy Evolution, Space Telescope Science Institute

• PRESENTATIONS DURING 2008

▷ “Tip of the Red Giant Branch Distance of Satellite Dwarfs as a Secondary Distance Indicator to NGC4258,” American Astronomical Society Meeting, Austin, TX, January,
2008.(Poster Individual)
▷ University of Concepción, Chile, January, 2008.( Individual)
▷ “Cepheids and the Extragalactic Scale with GMT,” Science with the Giant Magellan Telescope, Canberra, Australia, March, 2008.( Contributed)
▷ Universidad Catolica de Chile, Santiago, Chile, April, 2008.( Individual)
▷ University of Buenos Aires, Argentina, April, 2008.( Individual)
▷ University of Chile, Chile, April, 2008.( Individual)
▷ University of Cordoba, Argentina, April, 2008.( Individual)
▷ University of La Plata, Argentina, April, 2008.( Individual)

Hired 06/01/2008.
Hired 12/16/2008.

No report received from faculty member.
• **CHAIRS/PROFESSORSHIPS**
  - Mitchell/Heep Chair in Experimental High Energy Physics [2004]

• **SERVICE DURING 2008**
  
  **National**
  - Event: Session at Applied Superconductivity Conference (Chair)
  - Editorial/Board: Department of Energy (Review: Proposals), *Phys. Rev. STPB, TX Section APS, Particle Accel. Conf.* (Referee: Journals)

  **University**
  - Committee/Panel: Development Strategy Council (Member), Faculty Senate (Faculty Senator - 14)

  **College**
  - Committee/Panel: International Programs Committee (Member)

  **Department**
  - Committee/Panel: High Energy Physics Faculty Search (Member)

• **TEACHING ASSIGNMENTS DURING 2008**

  **Spring**
  - PHYS 603. — Electromagnetic Theory (total enrollment: 32)
  - PHYS 691. — Research (total enrollment: 3)

  **Summer**
  - PHYS 485. — Directed Studies (total enrollment: 2)
  - PHYS 691. — Research (total enrollment: 3)

  **Fall**
  - PHYS 218. — Mechanics (total enrollment: 120)
  - PHYS 302. — Advanced Mechanics (total enrollment: 35)
  - PHYS 485. — Directed Studies (total enrollment: 1)
  - PHYS 685. — Directed Studies (total enrollment: 1)
  - PHYS 691. — Research (total enrollment: 3)

• **RESEARCH PROJECTS DURING 2008**

  **Federal**
  - High Energy Physics at Texas A&M, *Department of Energy*
  - High Energy Physics at Texas A&M, *Department of Energy*
(REN) New Technology for Future Colliders, Department of Energy, coworkers: N. Diaczenko (Research Scientist), A. McInturff (Research Scientist), A. Sattarov (Research Scientist), R. Blackburn (Technician), T. Elliott (Technician), A. Jaisle (Technician), K. Damborsky (G), E. Holik (G), N. Pogue (G), C. Benson (U), C. English (U)

Texas A&M Participation in AMS Experiment, Department of Energy, coworkers: A. McInturff (Research Scientist), K. Stiff (Technician)

• PRESENTATIONS DURING 2008
  ▶ “Petavac: Boson-Boson Collisions at 100 TeV,” American Physical Society Meeting, El Paso, TX, October, 2008.( Individual)
  ▶ “Polyhedral Cavities for Linac Colliders,” Superconducting RF Materials Workshop, Michigan State University, East Lansing MI, October, 2008.( Individual)
  ▶ “Petavac: Boson-Boson Collisions at 100 TeV,” Los Alamos National Lab, Los Alamos, NM, November, 2008.( Individual)
  ▶ “Petavac: Boson-Boson Collisions at 100 TeV,” Low-Temperature Superconductor Workshop, Florida State University, Tallahassee, FL, November, 2008.( Individual)

• PUBLICATIONS DURING 2008
  ▶ Aaltonen, T.; et al. (2008) Search for Direct Pair Production of Supersymmetric Top and Supersymmetric Bottom Quarks in $p\bar{p}$ Collisions at $\sqrt{s} = 1.96$ TeV Physical Review D: Particles and Fields, vol. 76, 072010.
  ▶ Aaltonen, T.; et al. (2008) Measurement of the $p\bar{p} \rightarrow t\bar{t}$ Production Cross-Section and the Top Quark Mass at $\sqrt{s} = 1.96$ TeV in the all-hadronic decay mode Physical Review D: Particles and Fields, vol. 76, 072009.


Aaltonen, T.; et al. (2008) Search for New Heavy Particles Decaying to $Z^0Z^0 \rightarrow eee$ in $p\bar{p}$ Collisions at $\sqrt{s} = 1.96$ TeV Physical Review D: Particles and Fields, vol. 78, 0012008.


Aaltonen, T.; et al. (2008) Limits on the Production of Narrow $t\bar{t}$ Resonances in $p\bar{p}$ Collisions at 1.96 TeV with High-$p_t$ Leptons Physical Review D: Particles and Fields, vol. 77, 051102.


Aaltonen, T.; et al. (2008) Search for Supersymmetry in $p\bar{p}$ Collisions at $\sqrt{s} = 1.96$ TeV using the Trilepton Signature for Chargino-Neutralino Production Physical Review Letters.


Aaltonen, T.; et al. (2008) Search for Pair Production of Scalar Top Quarks Decaying to a $\tau$ Lepton and a $b$ Quark in $p\bar{p}$ Collisions at $\sqrt{s} = 1.96$ TeV Physical Review Letters, vol. 100, 071802.


Aaltonen, T.; et al. (2008) Observation of the Decay $B_{s}^{\pm} \rightarrow J/\Psi \pi^{\pm}$ and Measurement of the $B_{s}^{\pm}$ Mass Physical Review Letters, vol. 100, 182002.


Aaltonen, T.; et al. (2008) First Flavor-Tagged Determination of Bounds on Mixing-Induced CP Violation in $B_{s}^{0} \rightarrow j/\Psi \Phi$ Decays Physical Review Letters, vol. 100, 161803.

Aaltonen, T.; et al. (2008) Evidence for $D^{0} \rightarrow \bar{D}^{0}$ Mixing using the CDF II Detector Physical Review Letters, vol. 100, 161802.


Aaltonen, T.; et al. (2008) Search for $B_{s}^{0} \rightarrow \mu^{+} \mu^{-}$ and $B_{d}^{0} \rightarrow \mu^{+} \mu^{-}$ Decays with 2 fb-1 of $p\bar{p}$ Collisions Physical Review Letters, vol. 100, 101802.


Pogue, N.; Blackburn, R.; Sattarov, A. (August 2008) Proceeding Applied Superconductivity Conference; Superconducting Test Cavity with Dielectric Concentrator for High Q,
High Surface Field.
• SERVICE DURING 2008
  
  National
  ▷ Editorial/Board: Department of Energy (Review: Proposals), National Science Foundation (Review: Proposals), Physical Review Letters (Referee: Journals)

• TEACHING ASSIGNMENTS DURING 2008
  
  Spring
  ▷ PHYS 201. — College Physics (total enrollment: 90)
  ▷ PHYS 489 — Special Topics in (total enrollment: 5)
  
  Fall
  ▷ PHYS 201. — College Physics (total enrollment: 180)

• PRESENTATIONS DURING 2008
  
  ▷ “The $f_t$ Values of $\beta$ Decaying Nuclei: How Can Nuclear Physics Continue to Reduce the Uncertainty in the Value of $V_{ud}$?,” 5th International Conference on Exotic Nuclei and Atomic Masses, Ryn, Poland, September, 2008.( Invited)

• PUBLICATIONS DURING 2008
  
  ▷ Bhattacharya, M.; et al. (2008) $f_t$ Value of the 0+ $\rightarrow$ 0+ $\beta$ + decay of $^{32}$Ar: A Measurement of Isospin Symmetry Breaking in a Superallowed Decay Physical Review C: Nuclear Physics, vol. 77, 065503.
  ▷ Leach, K.G.; et al. (2008) Internal $\gamma$ Decay and the Superallowed Branching Ratio for the $\beta$ + Emitter $^{38}$Km Physical Review Letters, vol. 100, 192504.

Hired 01/16/2008.
SASKIA MIODUSZEWSKI
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• SERVICE DURING 2008
  International
  ▷ Editorial/Board: European Journal of Physics C (Referee: Journals)
  National
  ▷ Event: STAR Collaboration Council Chair (Organizer)
  ▷ Committee/Panel: APS Division of Nuclear Physics Nominating Committee (Member)
  College
  ▷ Ad Hoc Committee: Search Committee for Cyclotron Experimental Faculty Position (Member)
  Department
  ▷ Event: Chemistry Open House and Science Exploration Gallery (Participant), Physics Festival (Participant), Saturday Morning Physics Program (Participant)

• TEACHING ASSIGNMENTS DURING 2008
  Spring
  ▷ PHYS 601. — Analytical Mechanics (total enrollment: 20)
  ▷ PHYS 691. — Research (total enrollment: 1)
  Summer
  ▷ PHYS 691. — Research (total enrollment: 1)
  Fall
  ▷ PHYS 218. — Mechanics (total enrollment: 85)
  ▷ PHYS 691. — Research (total enrollment: 1)

• RESEARCH PROJECTS DURING 2008
  Federal
  ▷ Toward Understanding the QGP with the STAR Experiment at RHIC, Department of Energy, coworkers: R. Clarke (P), A. Hamed (P), M. Cervantes (G), M. Codrington (G)
  Private
  ▷ Alfred P. Sloan Fellowship, Alfred P. Sloan Foundation, coworkers: M. Codrington (G)

• PRESENTATIONS DURING 2008
  ▷ “γ + Jet Analysis in $\sqrt{s^{NN}} = 200$ GeV Au + Au Collisions with STAR,” Student Research Week at Texas A&M University, College Station, TX, March, 2008.( Graduate,
M. Codrington)

- “Hard Probes at RHIC,” Winter Workshop on Nuclear Dynamics, South Padre, TX, April, 2008. (Invited)
- “Probing High-Temperature QCD Matter,” Texas A&M University, College Station, TX, September, 2008. (Individual)
- “High-pT Probes,” Tamura Symposium, Austin, TX, November, 2008. (Invited)

• PUBLICATIONS DURING 2008

- Abelev, B.I.; et al. (2008) Spin Alignment Measurements of the K* (892) and φ (1020) Vector Mesons in Heavy Ion Collisions at $\sqrt{s_{NN}} = 200$ GeV Physical Review C: Nuclear Physics, vol. 77, 061902.
- Abelev, B.I.; et al. (2008) $\rho^0$ Photoproduction in Ultraperipheral Relativistic Heavy Ion Collisions at $\sqrt{s_{NN}} = 200$ GeV Physical Review C: Nuclear Physics, vol. 77, 034910.


Chemakin, I.; et al. (2008) Pion Production by Protons on a Thin Beryllium Target at 6.4-GeV/c, 12.3-GeV/c, and 17.5-GeV/c Incident Proton Momenta Physical Review C: Nuclear Physics, vol. 77, 015209.


• SERVICE DURING 2008

Regional
▷ Event: Brazos Valley Home School Class Group (Speaker)

Department
▷ Event: Fall and Spring Science Fair (Participant)

• TEACHING ASSIGNMENTS DURING 2008

Spring
▷ PHYS 205. — Concepts of Physics (total enrollment: 17)

Resigned 07/31/2008.

No report received from faculty member.
• CHAIRS/PROFESSORSHIPS
  ▶ Mitchell-Heep Chair in High Energy Physics [2002]

• AWARDS DURING 2008
  National
  ▶ Skai list of 100 Great Greeks of all time, BBC

• SERVICE DURING 2008
  International
  ▶ Committee/Panel: High Power Laser Energy Research (HiPER) European Consortium (Member), Onassis International Foundation (Member)
  National
  ▶ Event: Greek Delegation at the CERN Council (Representative), Greek Delegation at the CERN Council (Head), Journals, Newspapers, Radio and TV Channels, World ERT/NET, SKY TV, Alpha TV, Antenna TV (Speaker)
  ▶ Committee/Panel: NASA’s Small Explorers (SMEX), NASA’s Headquarters (Member)

• TEACHING ASSIGNMENTS DURING 2008
  Spring
  ▶ PHYS 689. — Special Topics in (total enrollment: 6)
  ▶ PHYS 691. — Research (total enrollment: 3)
  Summer
  ▶ PHYS 691. — Research (total enrollment: 4)
  Fall
  ▶ PHYS 689. — Special Topics in (total enrollment: 9)
  ▶ PHYS 691. — Research (total enrollment: 3)

• RESEARCH PROJECTS DURING 2008
  Federal
  ▶ High Energy Physics at Texas A&M, Department of Energy
  ▶ High Energy Physics at Texas A&M, Department of Energy
  ▶ Electromagnetic and Informational Processes in Biomolecular Polymers, National Science Foundation
- **PRESENTATIONS DURING 2008**
  - “Modern Cosmogony and the Velocity of Light,” Laskarides Foundation, Piraeus, Greece, January, 2008. (Individual)
  - “The Quantum and the Brain,” Euromedica Conference, Athens, Greece, April, 2008. (Individual)
  - “Fundamentals of Modern Cosmology,” Five Colloquia at the Free University of Athens, Athens, Greece, June, 2008. (Individual)
  - “Predicted Signals at LHC: The One-Parameter Model,” International School of Sub-Nuclear Physics, Erice, Italy, September, 2008. (Invited)
  - “Supergravity and String Signatures of the One-Parameter Model of the LHC,” Seminar at Texas A&M University, College Station, TX, September, 2008. (Individual)

- **PUBLICATIONS DURING 2008**


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- ADDITIONAL UNIVERSITY TITLES HELD DURING 2008
  - Member, Interdisciplinary Faculty, Materials Science and Engineering

- SERVICE DURING 2008
  - International
    - Editorial/Board: New Zealand Science Foundation (Marsden Foundation), and US-Israeli Cooperative Grants (Review: Proposals), *European Journal of Physics B* (Referee: Journals)
  - National
    - Advisory Board: Advances in Condensed Matter Physics (Member)
  - College
    - Committee/Panel: Research Advisory Committee (Member)
  - Department
    - Committee/Panel: Long Range Planning Committee (Member)
  - Interdisciplinary/Intercollegiate
    - Committee/Panel: Executive Committee of Materials Science & Engineering (Member)

- TEACHING ASSIGNMENTS DURING 2008
  - Spring
    - MSEN 691. — Research (total enrollment: 1)
    - PHYS 691. — Research (total enrollment: 4)
  - Summer
    - MSEN 691. — Research (total enrollment: 1)
    - PHYS 691. — Research (total enrollment: 4)
  - Fall
    - MSEN 691. — Research (total enrollment: 1)
    - PHYS 689. — Special Topics in (total enrollment: 13)
    - PHYS 691. — Research (total enrollment: 4)

- RESEARCH PROJECTS DURING 2008
 Federal

- Emergent Behavior in Magnet-Superconductor Hybrids, *Department of Energy*, coworkers: K. Rathnayaka (P), Z. Ye (P), L. Chapman Smith (G), A. DuMar (G), H. Lee (G), T. Morrison (G), E. Ozmetin (G), C. Bracher (U), K. Huggins (U), G. Rosaire (U), C. Weldy (U)

- (REN) Intrinsic Interactions Between Superconductivity and Magnetism in Quaternary and Pseudoquaternary Borocarbides, *National Science Foundation*

Private

- The Influence of Surfaces, Reduced Dimensionally and Disorder on the Properties of Solids, *The Robert A. Welch Foundation*

• PRESENTATIONS DURING 2008

- “Changes in the Crystalline Structure of Electroplated Co Nanowires Induced by Small Template Pore Size,” Magnetism and Magnetic Materials Conference, Austin, TX, November, 2008. (Individual)


- “Strong Alternating Magnetic Field from Magnetic Nanostructures,” Magnetism and Magnetic Materials Conference, Austin, TX, November, 2008. (Poster Individual)

- “Strong Increase of Critical Field and Current in Magnet-Superconductor Hybrids,” Magnetism and Magnetic Materials Conference, Austin, TX, November, 2008. (Poster Individual)

• PUBLICATIONS DURING 2008


• SERVICE DURING 2008

International
▷ Editorial/Board: Canada-France-Hawaii Telescope (Review: Proposals)

National
▷ Committee/Panel: Multimission Archive at the Space Telescope Science Institute (MAST) Users Group Committee (Member), NASA/JPL/Caltech-Sponsored Spitzer Prize Post-doctoral Fellowship (Reviewed)

Department
▷ Committee/Panel: Astronomy Committee (Member)

• TEACHING ASSIGNMENTS DURING 2008

Fall
▷ ASTR 314 — Survey of Astronomy (total enrollment: 22)
▷ PHYS 685. — Directed Studies (total enrollment: 1)
▷ PHYS 691. — Research (total enrollment: 1)

• RESEARCH PROJECTS DURING 2008

Private
▷ A Spitzer Public Legacy Survey of the UKIDSS Ultra Deep Survey, California Institute of Technology
▷ Survey of Paschen Alpha in High Redshift Galaxies, California Institute of Technology

• PRESENTATIONS DURING 2008

▷ Steward Observatory & Department of Astronomy, University of Arizona, Tucson AZ, January, 2008. (Individual)
▷ “Understanding Galaxies at the Peak of the Star-Formation Rate,” International Meeting, Probing Stellar Populations out to the Distant Universe, Cefalu, Italy, September, 2008. (Invited)
▷ “Understanding Stellar Populations in Lyman Alpha Emitters,” MPIA Heidelberg Workshop on Understanding Layman Alpha Emitters, October, 2008. (Contributed)
• PUBLICATIONS DURING 2008
GERHARD G. PAULUS

ASSOCIATE PROFESSOR        (979) 458-2864
PHYS-AMO Physics           ggpaulus@tamu.edu

• SERVICE DURING 2008

International
▷ Editorial/Board: Optics Communications (Member), Various Scientific Journals (Referee: Journals)
▷ Committee/Panel: CLEO/QES (Co-Chair), The Conference on Lasers and Electro-Optics (Member)

Department
▷ Event: Physics Festival (Organizer)
▷ Committee/Panel: AMO Physics/Quantum Optics Search Committee (Member), Building Committee (Member), Nano Science Search Committee I (Member), Nano Science Search Committee II (Member)

• TEACHING ASSIGNMENTS DURING 2008

Summer
▷ PHYS 691. — Research (total enrollment: 2)

• RESEARCH PROJECTS DURING 2008

Federal
▷ Atomic and Molecular Ions in Ultraintense Ultrashort Laser Fields, Department of Energy
▷ Development of a Phase-Coherent Laser System for Attosecond Science and Precision Spectroscopy, National Science Foundation, coworkers: A. Kolomenskii (Research Assistant)
▷ Quantum Optics with Single Optical Cycles, National Science Foundation

Private
▷ Attosecond Dynamics of Strong-Field Dissociation of the Molecular Hydrogen Ion, The Robert A. Welch Foundation, coworkers: F. Pham (G)

Other
▷ Attosecond Optical Technology Based on Recollision and Gating, Kansas State University, coworkers: L. Arissian (Research Assistant), E. Frumker (P)

• PUBLICATIONS DURING 2008


*On leave.*

*No report received from faculty member.*
• SERVICE DURING 2008

International
▷ Committee/Panel: Organizing Committee of the International CoOrganizing nference on Trends in Modern Theoretical Physics (Member)

National

Department
▷ Committee/Panel: Colloquium Committee (Member), Distinguised Professors Committee (Member)

• TEACHING ASSIGNMENTS DURING 2008

Spring
▷ PHYS 624. — Quantum Mechanics (total enrollment: 26)
▷ PHYS 691. — Research (total enrollment: 2)

Summer
▷ PHYS 691. — Research (total enrollment: 2)

Fall
▷ PHYS 606. — Quantum Mechanics (total enrollment: 20)
▷ PHYS 691. — Research (total enrollment: 2)

• RESEARCH PROJECTS DURING 2008

Federal
▷ (REN) Theory of Magnetic Heterostructures on the Nanometer Scale, Department of Energy, coworkers: K. Romanov (Research Scientist), M. Sears (G), D. Sun (G)

• PRESENTATIONS DURING 2008

▷ “Bose-Condensation in Disordered Systems,” Condensed Matter Seminar, Department of Physics, TAMU, College Station, TX, 2008. (Individual)
“Landau-Zener Transitions in a Noisy Environment,” Landau Memorial Session of Russian Academy of Sciences, Moscow, Russia, June, 2008.( Invited)
“100th Symposium on Statistical Physics,” Rutgers University, NJ, December, 2008.( Invited)

• PUBLICATIONS DURING 2008
CHRISTOPHER N. POPE
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• CHAIRS/PROFESSORSHIPS
  ⊳ Stephen Hawking Chair in Fundamental Physics [2002]

• ADDITIONAL UNIVERSITY TITLES HELD DURING 2008
  ⊳ Director, George P. & Cynthia Woods Mitchell Institute for Fundamental Physics & Astronomy, Physics, [2002]

• AWARDS DURING 2008
  Department
  ⊳ Graduate Student Award - Teaching, Physics Department, Texas A&M University

• SERVICE DURING 2008
  International
  ⊳ Editorial/Board: EPSERC (Review: Proposals), Oxford and Cambridge College Research Fellowships (Referee), University of Cambridge Adams Prize Essay (Review: Proposals)
  ⊳ Committee/Panel: George P. & Cynthia W. Mitchell Institute for Fundamental Physics (Director)
  Department
  ⊳ Committee/Panel: Computer Committee (Member), New Buildings Committee (Member)

• TEACHING ASSIGNMENTS DURING 2008
  Spring
  ⊳ PHYS 603. — Electromagnetic Theory (total enrollment: 21)
  ⊳ PHYS 691. — Research (total enrollment: 2)
  Summer
  ⊳ PHYS 691. — Research (total enrollment: 4)
  Fall
  ⊳ PHYS 611. — Electromagnetic Theory (total enrollment: 23)
  ⊳ PHYS 685. — Directed Studies (total enrollment: 1)
  ⊳ PHYS 691. — Research (total enrollment: 3)

• RESEARCH PROJECTS DURING 2008

688 2008 PHYSICS ANNUAL REPORT
Federal
▷ High Energy Physics at Texas A&M, Department of Energy
▷ High Energy Physics at Texas A&M, Department of Energy

• PRESENTATIONS DURING 2008
▷ “Infinite Dimensional Symmetries of Two Dimensional Coset Models,” Physics Department, Massachusetts Institute of Technology, Cambridge, MA, February, 2008. (Individual)

• PUBLICATIONS DURING 2008
RALF RAPP
ASSOCIATE PROFESSOR (979) 845-1411
PHYS-Quantum Chromodynamics, Nuclear Theory rapp@comp.tamu.edu

• SERVICE DURING 2008

International
▷ Event: CBM Working Group on In-Medium Excitations (Convener)
▷ Editorial/Board: CBM Physics Handbook (Member)

National

Department
▷ Event: Saturday Morning Physics (Speaker), Saturday Morning Physics (Organizer)
▷ Committee/Panel: Nuclear Experiment Search Committee (Member)

• TEACHING ASSIGNMENTS DURING 2008

Spring
▷ PHYS 201. — College Physics (total enrollment: 50)
▷ PHYS 691. — Research (total enrollment: 2)

Summer
▷ PHYS 691. — Research (total enrollment: 1)

Fall
▷ PHYS 625. — Nuclear Physics (total enrollment: 12)
▷ PHYS 691. — Research (total enrollment: 2)

• RESEARCH PROJECTS DURING 2008

Federal
▷ CAREER: Spectral Properties of Hot and Dense QCD Matter, National Science Foundation, coworkers: F. Riek (P), H. van Hees (P), X. Zhao (G), T. Strong (U)

• PRESENTATIONS DURING 2008

▷ “Charm(onium) Transport and Quark Coalescence in the QGP,” PHENIX Collaboration Meeting, University of Illinois, Urbana, IL, 2008. (Invited)
▷ “Charmonium as Probe of Quark-Gluon Plasma,” Shanghai JT University, China, 2008. (Graduate, X. Zhao)
▷ “Charmonium Production at high pt at RHIC,” 24th Winter Workshop on Nuclear Dynamics, South Padre Island, TX, 2008. (Graduate, X. Zhao)
▷ “Chiral Symmetry, Hadrons in Medium and Dileptons in Heavy-Ion Collisions,” 20th Indian Summer School of Physics and 4th HADES Summer School, Rez, Prague, Czech
Republic, 2008. (Invited)
▷ “Covariant and Selfconsistent Vertex Corrections for Pions and Isobars in Nuclear Matter,” McGill University, Montreal, QC, Canada, 2008. (Postdoc)
▷ “Heavy Flavor in the sQGP,” Winter Workshop on Nuclear Dynamics, South Padre Island, TX, 2008. (Invited)
▷ “Nonperturbative Heavy-Quark Transport at RHIC,” WE-Heraeus Seminar on Characterization of the QGP with Heavy Quarks, Physikzentrum Bad Honnef, Germany, 2008. (Invited)
▷ “Quarkonia, Heavy Quarks and sQGP,” International RIKEN-BNL Research Center Workshop, Brookhaven National Laboratory, Upton, NY, 2008. (Invited)
▷ “Theoretical Aspects of Heavy Quarkonia in Heavy-Ion Collisions,” Tamura Symposium, University of Texas, Austin, TX, 2008. (Graduate, X. Zhao)
▷ “Theory and Phenomenology of Heavy Flavor at RHIC,” International Conference on Strangeness in Quark Matter, Tsinghua University, Beijing, China, 2008. (Invited)
▷ “Thermal Kinetic Approach to Charmonium Production in Heavy-Ion Collisions,” Tsinghua University, Beijing, China, 2008. (Graduate, X. Zhao)

● PUBLICATIONS DURING 2008
• SERVICE DURING 2008
  
  International
  ▷ Editorial/Board: Computer Physics Communications (Associate Editor)

  National
  ▷ Editorial/Board: Journals of the American Physical Society (APS) (Referee: Journals)

  University
  ▷ Committee/Panel: Academic Appeals Panel (Member)

  Department
  ▷ Committee/Panel: Atomic Physics Search Committee (Member)

• TEACHING ASSIGNMENTS DURING 2008

  Spring
  ▷ PHYS 420 — Concepts Connections (total enrollment: 8)
  ▷ PHYS 615. — Methods of Theoretical Physics I (total enrollment: 8)

  Summer
  ▷ PHYS 202. — College Physics (total enrollment: 25)

  Fall
  ▷ PHYS 205. — Concepts of Physics (total enrollment: 25)
  ▷ PHYS 420. — Concepts Connections (total enrollment: 9)
• SERVICE DURING 2008

National

Department
▷ Event: Chemistry Open House (Demonstration Coordinator)

• TEACHING ASSIGNMENTS DURING 2008

Fall
▷ PHYS 218. — Mechanics (total enrollment: 110)
▷ PHYS 685. — Directed Studies (total enrollment: 1)

• PRESENTATIONS DURING 2008

▷ “Origin of Uncompensated Moments in Antiferromagnets and Their Role in Exchange Bias,” 53rd MMM Meeting, Austin, TX, November, 2008. (Contributed)

• PUBLICATIONS DURING 2008

• ADDITIONAL UNIVERSITY TITLES HELD DURING 2008
  ▶ Chair, Interdisciplinary Faculty, Computational Nanoscience and Materials - IGERT, [2006]
  ▶ Chair, Interdisciplinary Faculty, Materials Science and Engineering, [2006]

• SERVICE DURING 2008

  National

  Regional
  ▶ Event: Local Middle School/High School (Demonstration Coordinator)

  Department
  ▶ Event: Physics Festival (Organizer)
  ▶ Committee/Panel: Advisory Committee (Member), Colloquium Committee (Member), Graduate Admissions Committee (Member)

  Interdisciplinary/Intercollegiate
  ▶ Committee/Panel: Materials Science and Engineering Executive Committee (Chair)

• TEACHING ASSIGNMENTS DURING 2008

  Spring
  ▶ PHYS 208. — Electricity and Optics (total enrollment: 121)
  ▶ PHYS 685. — Directed Studies (total enrollment: 1)
  ▶ PHYS 691. — Research (total enrollment: 4)

  Summer
  ▶ PHYS 201. — College Physics (total enrollment: 43)
  ▶ PHYS 685. — Directed Studies (total enrollment: 1)
  ▶ PHYS 691. — Research (total enrollment: 3)

  Fall
  ▶ PHYS 685. — Directed Studies (total enrollment: 1)
  ▶ PHYS 691. — Research (total enrollment: 3)

• RESEARCH PROJECTS DURING 2008

  Federal
IGERT: New Mathematical Tools for Next Generation Materials, National Science Foundation, coworkers: A. Nandyala (G), T. Wellington (G)

Private
Magnetism in Silicon Clathrates: New Nanostructured Magnetic Materials, The Robert A. Welch Foundation, coworkers: V. Goruganti (G), W. Gou (G), S. Rodriguez (G), X. Zheng (G), D. Cao (U), H. Tsai (U)

• PRESENTATIONS DURING 2008
  “Magnetic Phase Transitions in $R_5NiPb_3$, $R = Ce$, Nd and Gd,” 53nd Magnetism and Magnetic Materials Conference, Austin, TX, 2008. (Individual)
  “Phase transitions in $R_5NiPb_3$ (R=Ce, Nd, Gd),” March Meeting of the American Physical Society, New Orleans, LA, 2008. (Individual)
  “Transport and Magnetic Properties of RTX and Related Compounds,” Texas Nano Materials, College Station, TX, August, 2008. (Individual)
  “Calculation of NMR lineshapes for Ba-Al-Ge clathrates,” Texas Section American Physical Society Meeting, El Paso, TX, October, 2008. (Individual)
  “Magnetic, Specific Heat, and Transport Studies of Rare-Earth Intermetallics,” Physics Colloquium, University of Puerto Rico, Mayaguez, October, 2008. (Individual)

• PUBLICATIONS DURING 2008
• SERVICE DURING 2008

National
▷ Event: CMS SLHC Muon Simulations Project; CMS CSC Track Based Alignment Project (Coordinator), CMS Tau Subgroup; US CMS LPC Tau Group (Convener)
▷ Editorial/Board: US Department of Energy (Review: Proposals)

Department
▷ Committee/Panel: Collider High Energy Faculty Search Committee (Member), Graduate Admissions Committee (Member), High Energy Search Committee (Member), Qualification Exam Committee (Member)

• TEACHING ASSIGNMENTS DURING 2008

Spring
▷ PHYS 691. — Research (total enrollment: 2)

Summer
▷ PHYS 691. — Research (total enrollment: 2)

Fall
▷ PHYS 218. — Mechanics (total enrollment: 83)
▷ PHYS 691. — Research (total enrollment: 3)

• RESEARCH PROJECTS DURING 2008

Federal
▷ CMS Endcap Muon M&O, Department of Energy, coworkers: A. Golyash (Technician), A. Elagin (P), C. Nguyen (P), J. Pivarski (P)
▷ DOE Travel Supplement (US CMS Trigger), Department of Energy, coworkers: P. Nguyen (P), J. Pivarski (P)
▷ High Energy Physics at Texas A&M, Department of Energy
▷ High Energy Physics at Texas A&M, Department of Energy
▷ Outstanding Junior Investigator Award, Department of Energy, coworkers: P. Nguyen (P), A. Elagin (G)
▷ US CMS Core Program Enhancement, Department of Energy, coworkers: A. Golyash (Assistant Research Specialist), V. Khotilovich (Assistant Research Specialist), P. Nguyen (P), J. Pivarski (P), M. Mason (G), S. Senkin (G)
▷ US CMS Core Program Enhancement, Department of Energy, coworkers: A. Golyash (Assistant Research Specialist), P. Nguyen (P), J. Pivarski (P), S. Senkin (G)
▷ US CMS SLHC Upgrade Project, Department of Energy, coworkers: V. Khotilovich (Assistant Research Specialist), M. Mason (G)

LPC Convener Travel Support, *FERMI National Accelerator Laboratory*

LPC Foreign Travel Convener Support, *FERMI National Accelerator Laboratory*

US CMS Muon System Commissioning Project, *FERMI National Accelerator Laboratory*, coworkers: A. Golyash (Assistant Research Specialist), V. Khotilovich (Assistant Research Specialist), J. Pivarski (P), S. Senkin (G)

US CMS Upgrade Endcap Muon M&O Subsystem, *FERMI National Accelerator Laboratory*

US CMS Upgrade R&D M&O, *FERMI National Accelerator Laboratory*

### State

Montague Scholar Award, *Texas A&M University*, coworkers: M. Mason (G)

#### PRESENTATIONS DURING 2008

- “A New Algorithm for Measuring the Energy of Hadronically Decaying Tau Leptons,” American Physical Society April Meeting, St. Louis, MO, April, 2008. (Contributed)
- “Physics Searches with Tau Leptons in the Final State at CMS and Triggering,” American Physical Society April Meeting, St. Louis, MO, April, 2008. (Contributed)
- “Track-Based Alignment of the CMS Muon Detector,” American Physical Society April Meeting, St. Louis, MO, April, 2008. (Contributed)
- “LHC: The New Era Has Just Started,” Departmental Colloquium, Texas A&M University, College Station, TX, September, 2008. (Individual)
- “CMS Triggers for the LHC Startup,” International Conference on Particle Physics, Istanbul, Turkey, October, 2008. (Invited)

#### PUBLICATIONS DURING 2008

- Aaltonen, T.; et al. (2008) Search for Pair Production of Scalar Top Quarks Decaying to a tau lepton and a b quark in pp-bar Collisions at $\sqrt{s}=1.96$ TeV *Physical Review Letters*, vol. 101, 071802.
- Breedon, R.; et al. (2008) Efficiency of Finding Muon Track Trigger Primitives in CMS Cathode Strip Chambers *Nuclear Instruments and Methods in Physics Research Section*
• ADDITIONAL UNIVERSITY TITLES HELD DURING 2008
  ▶ Member, Interdisciplinary Faculty, Materials Science and Engineering, [2006]

• SERVICE DURING 2008

  National

  College
  ▶ Committee/Panel: Grievance Committee (Elected Member), Undergraduate Curriculum Committee (Member)

  Department
  ▶ Event: Physics Science Fairs (Participant)
  ▶ Committee/Panel: Faculty Development Leave Committee (Member), Mitchell Institute and Building Committee (Member), Undergraduate Curriculum Committee (Chair)

• TEACHING ASSIGNMENTS DURING 2008

  Spring
  ▶ PHYS 208.(H) — Electricity and Optics (total enrollment: 35)
  ▶ PHYS 489. — Special Topics in (total enrollment: 6)

  Summer
  ▶ PHYS 208. — Electricity and Optics (total enrollment: 70)

  Fall
  ▶ PHYS 485. — Directed Studies (total enrollment: 1)
  ▶ PHYS 601. — Analytical Mechanics (total enrollment: 20)

• RESEARCH PROJECTS DURING 2008

  Federal
  ▶ (REN) Theory of Magnetic Heterostructures on the Nanometer Scale, Department of Energy

• PRESENTATIONS DURING 2008

“Landau-Lifshitz or Gilbert Damping? That is the Question,” Magnetism and Magnetic Materials Conference, Austin, TX, November, 2008. (Individual)

- **PUBLICATIONS DURING 2008**
HANS A. SCHUESSLER

PROFESSOR
PHYS-Quantum Optics
schuessler@physics.tamu.edu

• CHAIRS/PROFESSORSHIPS
  ▷ Schuessler/Mitchell/Heep Chair in Experimental Optical and Biomedical Physics [2004]

• SERVICE DURING 2008

  National

  Department
  ▷ Committee/Panel: AMO Search Committee (Member), Awards Committee (Member)

• TEACHING ASSIGNMENTS DURING 2008

  Spring
  ▷ PHYS 218. — Mechanics (total enrollment: 237)
  ▷ PHYS 691. — Research (total enrollment: 3)

  Summer
  ▷ PHYS 218. — Mechanics (total enrollment: 45)
  ▷ PHYS 485 — Directed Studies (total enrollment: 1)
  ▷ PHYS 691. — Research (total enrollment: 3)

  Fall
  ▷ PHYS 491. — Research (total enrollment: 1)
  ▷ PHYS 691. — Research (total enrollment: 3)

• RESEARCH PROJECTS DURING 2008

  Federal
  ▷ Development of a Phase-Coherent Laser System for Attosecond Science and Precision Spectroscopy, National Science Foundation
  ▷ Development of Submillimeter/Terahertz Instrumentation for Spectroscopy and Dynamics, National Science Foundation
  ▷ Electromagnetic and Informational Processes in Biomolecular Polymers, National Science Foundation, coworkers: A. Kolmenski (Research Scientist), A. Bradshaw (U), A. Dunbar (U), R. Nava (U), S. Peng (U), V. Thukral (U), L. Wright (U)
  ▷ Precision Spectroscopy of the Helium Ion in the XUV-Region, National Science Foundation

  Private
- Preparation of Ultracold Molecular Ions and Their Optical Studies Using Femtosecond Laser Pulses, *The Robert A. Welch Foundation*, coworkers: F. Zhu (G)

- (REN) Preparation of Ultracold Molecular Ions and Their Optical Studies using Femtosecond Laser Pulses and High Harmonic Generation, *The Robert A. Welch Foundation*

**International**

- Utilizing Laser Spectroscopy of Noble Gas Traces for Mapping Oil and Gas Deposits, *Qatar Foundation*

• **PRESENTATIONS DURING 2008**

  
  - “Laser Spectroscopy on Frequency Comb (RIKEN), Attosecond (Texas A&M University), and Adventurous (Doha) Paths,” Ringberg Conference, Castle Ringberg, Germany, 2008. (Invited)
  
  - “Absolute Frequency Measurements on Mg+ Cooling Transitions,” German Physical Society (DFG) Meeting, Darmstadt, Germany, March, 2008. (Individual)
  
  - “Precision Spectroscopy of ArII using a Frequency Comb,” MPQ, Garching, Germany, July, 2008. (Individual)
  
  - “Feasibility of Precision Spectroscopy of the Hydrogen Molecular Ion in the XUV Spectra Region,” Multi-Disciplinary Undergraduate Research Institute, College Station, TX, August, 2008. (Individual)
  
  
  

• **PUBLICATIONS DURING 2008**


• CHAIRS/PROFESSORSHIPS
  ⊳ Distinguished Research Chair (TEES) /2000/
  ⊳ Hershel E. Burgess Chair in Physics (Non-High Energy Physics) /1997/

• ADDITIONAL UNIVERSITY TITLES HELD DURING 2008
  ⊳ Professor (J), Chemistry, /2007/
  ⊳ Associate Dean for External Relations, Office of External Relations, College of Science, /2005/
  ⊳ Director, Institute for Quantum Studies (IQS), Physics, /2001/
  ⊳ Director, Center for Theoretical Physics, Physics, /1995/

• AWARDS DURING 2008
  University
  ⊳ Loeb Lecturer, Harvard University

• SERVICE DURING 2008
  International
  ⊳ Committee/Panel: Academia Europaea (Member), Max Planck Society (Member)
  National
  ⊳ Professional Affiliation: American Physical Society (Fellow), Optical Society of America (Fellow)
  ⊳ Event: Foundations of Quantum Mechanics Workshop (Organizer), Physics of Quantum Electronics Conference (Organizer), Texas A&M University-Princeton Workshop on Classical, Semi-Classical, and Quantum Noise (Organizer), Texas A&M University-Princeton Workshop on Fundamental Aspects of Quantum Mechanics (Organizer), Texas A&M University-Princeton Workshop on Quantum Coherence and Laser Spectroscopy (Organizer), Texas A&M University-Princeton Workshop on Quantum Informatics and Another One Molecular Physics (Organizer), Texas A&M University-Princeton Workshop on Quantum Mechanics, Informatics and Control (Organizer), Texas A&M University-Princeton-Casper College Summer School (Organizer)
  ⊳ Committee/Panel: American Association of Arts and Science (Member)

  College
  ⊳ Committee/Panel: Distinguished Professors Executive Committee (Member), Executive Committee (Member)

  Department
  ⊳ Committee/Panel: AMO Search Committee (Member)

• TEACHING ASSIGNMENTS DURING 2008
Spring
▷ PHYS 691. — Research (total enrollment: 7)

Summer
▷ PHYS 691. — Research (total enrollment: 8)

Fall
▷ PHYS 691. — Research (total enrollment: 8)

• RESEARCH PROJECTS DURING 2008

Federal
▷ Quantum Coherence, Stand-off Spectroscopy, and Quantum Optics, Office of Naval Research
▷ Quantum Optics Initiative II, Office of Naval Research, coworkers: A. Hill (Research Scientist), R. Xie (Research Scientist), N. Kalouguine (Research Staff), Y. Dou (P), N. Erez (P), A. Muthukrishnan (P), C. Ooi (P), A. Patnaik (P), V. Sautenkov (P), S. Hanna (G), K. Urtekin (G)

Private
▷ Non-Invasive Blood Glucose Monitoring-Texas A&M and Aretais Corporation, Aretais, Inc
▷ Quantum Coherence and Decoherence in Atomic Molecular and Solid State Systems: Continuation and Extensions, The Robert A. Welch Foundation, coworkers: R. Murawski (P), P. Sauer (P), H. Chen (G), Z. Sarriyianni (G)

• PUBLICATIONS DURING 2008


No report received from faculty member.
• ADDITIONAL UNIVERSITY TITLES HELD DURING 2008
  ▶ Co-Director, George P. & Cynthia Woods Mitchell Institute for Fundamental Physics & Astronomy, Physics, [2002]

• SERVICE DURING 2008
  International
  ▶ Editorial/Board: Engineering and Physical Sciences Research Council (Review: Proposals)

  National

  Department
  ▶ Event: Physics Festival (Participant)
  ▶ Committee/Panel: Promotions, Tenure, and Appointments Committee (Member)

• TEACHING ASSIGNMENTS DURING 2008
  Spring
  ▶ PHYS 305. — Advanced Electricity and Magnetism II (total enrollment: 19)
  ▶ PHYS 691. — Research (total enrollment: 1)

  Summer
  ▶ PHYS 691. — Research (total enrollment: 1)

  Fall
  ▶ PHYS 304. — Advanced Electricity and Magnetism I (total enrollment: 31)
  ▶ PHYS 691. — Research (total enrollment: 2)

• RESEARCH PROJECTS DURING 2008
  Federal
  ▶ Strings, Branes, and the Search for Unification, National Science Foundation, coworkers: J. Kumar (P), D. Jong (G)

• PRESENTATIONS DURING 2008
  ▶ “Gauging on-shell Duality Symmetries of Maximal 6D Supergravity,” Kellogg Stelle’s 60th Birthday, London, United Kingdom, April, 2008.( Invited)
  ▶ “Superconformal Gaugings in 3D,” Workshop on 3D SCFTs and Their Gravity Duals, Montreal, Canada, September, 2008.( Invited)
“Superconformal Gaugings in Three Dimensions,” Texas A&M University, College Station, TX, September, 2008. (Individual)


- PUBLICATIONS DURING 2008
• ADDITIONAL UNIVERSITY TITLES HELD DURING 2008
  ▶ Member, Interdisciplinary Faculty, Computational Nanoscience and Materials - IGERT,

• AWARDS DURING 2008
  University
  ▶ Big 12 Faculty Fellowship, Texas A&M University
  College
  ▶ Distinguished Achievement Award - Teaching, The Association of Former Students

• SERVICE DURING 2008
  International
  ▶ Editorial/Board: European and Asian Agencies (Review: Proposals), Various International Journals (Referee: Journals)
  National
  ▶ Committee/Panel: National Science Foundation Panels (Review Panel)
  Department
  ▶ Event: Chemistry Open House (Volunteer), Condensed Matter Seminar (Organizer), Physics Open House (Volunteer)
  ▶ Committee/Panel: Building Committee (Member), Undergraduate Curriculum Committee (Member)

• TEACHING ASSIGNMENTS DURING 2008
  Spring
  ▶ PHYS 685. — Directed Studies (total enrollment: 1)
  ▶ PHYS 691. — Research (total enrollment: 2)
  Summer
  ▶ PHYS 691. — Research (total enrollment: 3)
  Fall
  ▶ PHYS 691. — Research (total enrollment: 3)

• RESEARCH PROJECTS DURING 2008
  Federal

CAREER: Spin Dependent Phenomena in Semiconductors, *National Science Foundation*, coworkers: A. Kovalev (P), M. Borunda (G), X. Liu (G)

State

Paradigm of Physics Education Program, *Texas A&M University*

South West Academy for Nanoelectronics (SWAN), *University of Texas*

Private


Industrial

NRI Center: South West Academy of Nanoelectronics, *North American Electric Reliability Corporation*

**PRESENTATIONS DURING 2008**


"Infrared Longitudinal and Hall Conductivities in GaMnAs Films," American Physical Society March Meeting, New Orleans, LA, March, 2008. (Contributed)


"Challenges and Chemical Trends Dilute Magnetic Semiconductor," Rice University, Houston, TX, April, 2008. (Individual)

"Making Semiconductors Ferromagnetic," Texas A&M University via Teleconferencing, College Station, TX, April, 2008. (Invited)


"Theory of Hall Effects and Weak Localization in Strongly Spin-Orbit Coupled Systems:


▷ “Spin Injection Hall Effect: A New Member of the Spintronic Hall Family,” Institute of Physics of the Academy of Science of the Czech Republic, Czech Republic, Prague, November, 2008. (Individual)

▷ “Spin Injection Hall Effect: A New Member of the Spintronic Hall Family,” Kavli Institute of Theoretical, Santa Barbara, CA, December, 2008. (Invited)

• PUBLICATIONS DURING 2008


ALEXEI V. SOKOLOV

ASSOCIATE PROFESSOR (979) 845-7733
PHYS-At. and Mol. Phys., Quantum Optics sokol@physics.tamu.edu

• CHAIRS/PROFESSORSHIPS
  ➤ Stephen E. Harris Professorship in Quantum Optics [2006]

• ADDITIONAL UNIVERSITY TITLES HELD DURING 2008
  ➤ Member, Interdisciplinary Faculty, Materials Science and Engineering, [2006]

• AWARDS DURING 2008
  National
  ➤ Fellow, Optical Society of America

• SERVICE DURING 2008
  International
  ➤ Committee/Panel: Nonlinear Optics and Novel Phenomena Program Sub-committee for the (CLEO/IQEC) (Member)

  National
  ➤ Event: Attosecond Science MURI Workshop (Organizer), Raman Technique for Ultrashort Pulses at the 38th Winter Colloquium on the Physics of Quantum Electronics (Organizer)
  ➤ Editorial/Board: Optics Letters, and Physical Review A (Referee: Journals)
  ➤ Committee/Panel: Optical Society of America (Fellow)

  Department
  ➤ Event: Chemistry Open House & Science Exploratorium (Presenter)
  ➤ Ad Hoc Committee: Mentoring Programs (Member)
  ➤ Committee/Panel: AMO Search Committee (Chair), Building Committee (Member),
    Graduate Admissions Committee (Member), Quantum Optics Faculty Search Committee (Chair), The Shop Committee (Member)

• TEACHING ASSIGNMENTS DURING 2008
  Spring
  ➤ PHYS 485. — Directed Studies (total enrollment: 1)
  ➤ PHYS 685. — Directed Studies (total enrollment: 1)
  ➤ PHYS 691. — Research (total enrollment: 5)

  Summer
  ➤ PHYS 685. — Directed Studies (total enrollment: 2)
  ➤ PHYS 691. — Research (total enrollment: 4)

  Fall
  ➤ PHYS 685. — Directed Studies (total enrollment: 1)
• RESEARCH PROJECTS DURING 2008

Federal
▷ (REN) Ultrashort Laser Pulse Propagation in Water, Department of Defense
▷ Ultrashort Laser Pulse Propagation in Water, Department of Defense, coworkers: J. Byeon (G), L. Naveira (G)
▷ Development of a Phase-Coherent Laser System for Attosecond Science and Precision Spectroscopy, National Science Foundation, coworkers: A. Kolomenskii (Research Assistant)
▷ Sub-Cycle Optical Pulse Shaping by Parametric Beating with Adiabatically Prepared Raman Coherence, National Science Foundation, coworkers: A. Chugreev (P), A. Burzo (G), J. Peng (G), M. Zhi (G), J. Krause (U), J. Trevino (U)

State
▷ Subfemtosecond Laser Pulse Compression by Coherent Oscillations in Raman-Active Crystals, Texas Higher Education Coordinating Board, coworkers: A. Burzo (P), X. Hua (G), J. Peng (G)

Private
▷ Applications of Molecular Coherence in Ultrafast Optics, The Robert A. Welch Foundation, coworkers: A. Burzo (P), X. Wang (G), K. Wang (G)
▷ Generation and Control of Femtosecond Pulses by Molecular Modulation, The Robert A. Welch Foundation, coworkers: A. Chugreev (P), A. Burzo (G), J. Peng (G), M. Zhi (G)

Other
▷ Attosecond Optical Technology Based on Recollision and Gating, Kansas State University

• PRESENTATIONS DURING 2008

▷ “Discrimination Between CARS and Background from Biological Samples,” Texas A&M UniversityPhysics of Quantum Electronics Symposium, College Station, TX, January, 2008. (Invited)
▷ “Novel Light Sources Utilizing Maximal Quantum Coherence in Molecular Gasses and Solids,” Texas A&M UniversityPhysics of Quantum Electronics Symposium, College Station, TX, January, 2008. (Invited)
▷ “Toward Sub-Cycle Field Shaping by Molecular Modulation in Gasses and Solids: Raman Coherence at Work,” Texas A&M UniversityPhysics of Quantum Electronics Symposium, College Station, TX, January, 2008. (Invited)
▷ “Ultrafast Coherent Raman Spectroscopy: Hybrid Technique and Its Applications,” Texas
A&M University

Physics of Quantum Electronics Symposium, College Station, TX, January, 2008. (Invited)


- “Attosecond Applications of Molecular Coherence,” Attosecond Science MURI Workshop, College Station, TX, August, 2008. (Invited)

- “Molecular Modulation with Sub-cycle Field Control,” Attosecond Science MURI Workshop, College Station, TX, August, 2008. (Invited)


- “Quantum Coherence in Molecular Gasses and Solids: Physics and Applications,” Joint Complex Quantum Systems/Nonlinear Dynamics Seminar, University of Texas, Austin, TX, November, 2008. (Individual)

- “Applications of Coherent Raman Scattering I: FAST CARS for Rapid Identification of Chemical and Biological Unknowns,” NATO Advanced Study Institute, Ottawa, Canada, December, 2008. (Invited)

- “Applications of Coherent Raman Scattering II: Novel Light Sources Utilizing Maximal Quantum Coherence in Molecular Gasses and Solids,” NATO Advanced Study Institute, Ottawa, Canada, December, 2008. (Invited)

• PUBLICATIONS DURING 2008


• CHAIRS/PROFESSORSHIPS
  ▷ Mitchell-Heep-Munnerlyn Endowed Chair in Observational Astronomy [2006]

• SERVICE DURING 2008

  International
  ▷ Editorial/Board: Department of Physics, University of British Columbia (Reviewer)

  National
  ▷ Professional Affiliation: American Astronomical Society (Councilor)
  ▷ Committee/Panel: Astronomy and Public Policy, American Astronomical Society (Member), Astrophysics Subcommittee Panel, NASA Advisory Committee on Science (Member), Dark Energy Task Force - DOE, NSF (Member), Hubble Space Telescope Time Assignment Committee (Member), LSST Science Team Review, Tucson AZ (Chairman)

  Regional
  ▷ Event: College Station/Bryan Chamber of Commerce (Speaker)

  University
  ▷ Event: George Mitchell Fundraising Lunch (Speaker), Giant Magellan Project (Representative)

  Department
  ▷ Committee/Panel: Astronomy Search Committee (Chair), Long Range Planning Committee (Member)

• TEACHING ASSIGNMENTS DURING 2008

  Spring
  ▷ PHYS 691. — Research (total enrollment: 1)

  Summer
  ▷ PHYS 691. — Research (total enrollment: 2)

  Fall
  ▷ PHYS 485. — Directed Studies (total enrollment: 1)
  ▷ PHYS 691. — Research (total enrollment: 2)

• RESEARCH PROJECTS DURING 2008

  Federal
  ▷ Collaborative Research: Three-Dimensional Simulations of Type Ia Supernovae Constraining Models with Observations, National Science Foundation
Resolving the LMC Microlensing Puzzle: Where are the Lensing Objects, Space Telescope Science Institute

SAINTS: Supernova 1987A Intensive Survey (Cycle 13), Space Telescope Science Institute

SAINTS: Supernova 1987A Intensive Survey (Cycle 14), Space Telescope Science Institute

• PRESENTATIONS DURING 2008

“Supernova Cosmology Results From Six Years of ESSENCE,” American Astronomical Society, AAS Meeting #213, 2008. (Individual)

Science with the GMT, Canberra, Australia, March, 2008. (Individual)

Mitchell Institute Cook’s Branch Meeting, April, 2008. (Individual)

Carnegie Supernova Workshop, June, 2008. (Individual)

Summer Science Program, New Mexico State University, Socorro, NM, June, 2008. (Individual)


• PUBLICATIONS DURING 2008


• ADDITIONAL UNIVERSITY TITLES HELD DURING 2008
  ▶ Member, Interdisciplinary Faculty, Computational Nanoscience and Materials - IGERT, [2006]
  ▶ Member, Interdisciplinary Faculty, Materials Science and Engineering, [2006]

• SERVICE DURING 2008

  International
  ▶ Editorial/Board: Various International Journals (Referee: Journals)

  National
  ▶ Editorial/Board: American Physical Society (Review: Proposals), National Science Foundation (Review: Proposals)

  University
  ▶ Committee/Panel: Faculty Senate (Faculty Senator - 02), International Programs Subcommittee of the Texas A&M University Faculty Senate (Member), Research Committee (Member), Search Committee for new Director of Information Technology (Member), University Research Council (Member)

  Department
  ▶ Event: “Cryogenic” Show at Physics Mini-Exporatorium (Presenter)
  ▶ Committee/Panel: Faculty Search Committee (Member), Physics Building Committee (Member), Several Thesis Committees (Chair)

Interdisciplinary/Intercollegiate
  ▶ Committee/Panel: Materials Science and Engineering Graduate Admission Committee (Member)

• TEACHING ASSIGNMENTS DURING 2008

  Spring
  ▶ MSEN 685.620 — Directed Studies (total enrollment: 1)
  ▶ MSEN 691.620 — Research (total enrollment: 1)
  ▶ PHYS 218.520 — Mechanics (total enrollment: 24)
  ▶ PHYS 218.521 — Mechanics (total enrollment: 22)
  ▶ PHYS 218.522 — Mechanics (total enrollment: 24)
  ▶ PHYS 218.523 — Mechanics (total enrollment: 22)
  ▶ PHYS 218.524 — Mechanics (total enrollment: 24)
  ▶ PHYS 425.500 — Physics Laboratory (total enrollment: 11)
  ▶ PHYS 491.538 — Research (total enrollment: 1)
  ▶ PHYS 491.938 — Research (total enrollment: 1)
PHYS 685.638 — Directed Studies (total enrollment: 1)
PHYS 691.638 — Research (total enrollment: 3)

Summer
PHYS 685.638 — Directed Studies (total enrollment: 1)
PHYS 691.638 — Research (total enrollment: 3)
MSEN 685.120 — Directed Studies (total enrollment: 1)
MSEN 691.120 — Research (total enrollment: 1)
MSEN 691.220 — Research (total enrollment: 2)
PHYS 691.154 — Research (total enrollment: 1)
PHYS 691.220 — Research (total enrollment: 2)
PHYS 691.254 — Research (total enrollment: 1)
PHYS 691.354 — Research (total enrollment: 2)

Fall
MSEN 691.620 — Research (total enrollment: 1)
PHYS 691.654 — Research (total enrollment: 5)

• RESEARCH PROJECTS DURING 2008

Federal
A Systematic Study of the Structural Magnetic and Spectroscopic Properties of Clusters and Extended Arrays Based on Cyanide Ligands, *National Science Foundation*
NUE: Infusing Nanomaterials into Undergraduate Science and Engineering Curricula, *National Science Foundation*

State
Nanotechnology and Its Impact on Construction, *University of Texas*

University
Center for Nanoscale Science and Technology, *College of Science*, coworkers: A. Ford (G), K. Kim (G)
(REN) International Research Travel Grant: Conductance of Molecular Magnets in Mechanical Break Junctions, *Texas A&M University International Center*
Purchase of a Laser-Interferometer State for Electron Beam Lithography, *Texas Engineering Experiment Station*

Private
(REN) Enhanced Anisotropy of Molecular Nanomagnets, *The Robert A. Welch Foundation*, coworkers: A. Ford (G), K. Kim (G), D. Seo (G), R. Srivastava (G)

• PRESENTATIONS DURING 2008

“Electronic Transport Studies on the Prussian Blue Analog FeII-CrIII,” 25th International Conference for Low Temperature Physics, Amsterdam, Netherlands, 2008.(Poster Individual)
“How do Surfaces Affect the Properties of Complex Molecules,” Department Colloquium at Baylor University, Waco, TX, 2008. (Individual)

“Nanotechnology Vision and Implementation,” Teacher Summit, College Station, TX, 2008. (Individual)

“Thin Films of Molecular Magnets,” Karl-Franzens-Universitt Graz, Graz, Austria, 2008. (Individual)

- PUBLICATIONS DURING 2008


• AWARDS DURING 2008

University
▷ Student Led Award - Teaching Excellence, Texas A&M University
▷ University Professorships for Undergraduate Teaching Excellence, Texas A&M University

• SERVICE DURING 2008

National
▷ Editorial/Board: White Paper Committee for CDF (Member)
▷ Committee/Panel: MIT Undergraduate Admissions Committee, Education Council (Member)

University
▷ Committee/Panel: Academic Master Plan’s Teaching Roadmap Committee (Member)

Department
▷ Service Position: Physics 218 Mechanics Scholar Program (Administrator), WebCT Courses for Physics 201, 202, 208, 208 Honors, 218 and 218 Honors, 289, ASTR 314 (Course Coordinator)
▷ Editorial/Board: Search for Scalar Top Quarks, CDF (Editoral Board), Signature Based Search in the $\gamma bj+\text{Met}$ Final State, CDF (Editoral Board)
▷ Committee/Panel: Faculty Mentoring Program Development Committee (Member), High Energy Experiment Faculty Search (Chair), High Energy Representative to the Advisory Committee (Member), REU Admissions Committee (Member), Thesis Committee (Member)

• TEACHING ASSIGNMENTS DURING 2008

Spring
▷ PHYS 218. — Mechanics (total enrollment: 80)
▷ PHYS 485. — Directed Studies (total enrollment: 1)
▷ PHYS 685. — Directed Studies (total enrollment: 1)
▷ PHYS 691. — Research (total enrollment: 3)

Summer
▷ PHYS 485. — Directed Studies (total enrollment: 1)
▷ PHYS 691. — Research (total enrollment: 3)

Fall
▷ PHYS 289. — Special Topics in (total enrollment: 31)
▷ PHYS 691. — Research (total enrollment: 3)
• RESEARCH PROJECTS DURING 2008

Federal

▷ High Energy Physics at Texas A&M, Department of Energy
▷ High Energy Physics at Texas A&M, Department of Energy
▷ Grad Student Support from Fermi National Accelerator Laboratory, FERMI National Accelerator Laboratory
▷ Supporting the CDF Run II Operation by the Texas A&M University, FERMI National Accelerator Laboratory
▷ (REN) Supporting the CDF Run II Operation by the Texas A&M University, FERMI National Accelerator Laboratory
▷ US CMS Hadron Calorimeter M&O Subsystem, FERMI National Accelerator Laboratory

• PRESENTATIONS DURING 2008

▷ “Determining $\Omega h^2$ at the LHC-mSUGRA Co-annihilation Case,” Nuclear, Particle Astroparticle, and Cosmology Seminar University of New Mexico, Albuquerque, NM, March, 2008.( Individual)
▷ “Search for Heavy, Neutral, Long-Lived Particles That Decay to Photons at CDF,” Fermilab Users Meeting, Awards Ceremony Acceptance Talk for the University Research Association Thesis Award, Chicago, IL, June, 2008. ( Individual)
▷ “The Search for Supersymmetry and Beyond the Standard Model Physics at the Fermilab Tevatron,” 4th International Conference Dedicated to the Physics at LHC, Croatia, September, 2008. ( Individual)
▷ “Searches Using Photons and/or Jets at CDF,” 18th Particle and Nuclei International Conference, Israel, November, 2008. ( Individual)

• PUBLICATIONS DURING 2008

Coannihilation Region at the Large Hadron Collider Physical Review Letters, vol. 100, 231802.
• ADDITIONAL UNIVERSITY TITLES HELD DURING 2008
  ▶ Director, Cyclotron Institute, College of Science, [2003]

• SERVICE DURING 2008

  International
  ▶ Editorial/Board: Natural Sciences and Engineering Research Council of Canada (Review: Proposals), Review of Progress in Physics (Editor)
  ▶ Committee/Panel: Experiments Evaluation Committee, TRIUMF, Vancouver, British Columbia (Chair), International Union of Pure and Applied Physics WG9 (IUPAP) (Member), Office of Economic Cooperation and Development Global Science Forum Working Group on Nuclear Physics (Member)

  National
  ▶ Advisory Board: Department of Energy/National Science Foundation Nuclear Science Advisory Committee (Chair)
  ▶ Committee/Panel: Nuclear Science Advisory Committee Isotopes Subcommittee (Member), Program Advisory Committee, National Superconducting Cyclotron Laboratory, Michigan State University (Member), Program Review and Advisory Committee for Fundamental Neutron Physics Beamline at the SNS (Chair)

  University
  ▶ Committee/Panel: IPECC (Member), Study Abroad Program Policy Committee (Member)

  College
  ▶ Committee/Panel: Executive Committee (Member)

• TEACHING ASSIGNMENTS DURING 2008

  Spring
  ▶ PHYS 691. — Research (total enrollment: 3)

  Summer
  ▶ PHYS 491. — Research (total enrollment: 14)
  ▶ PHYS 691. — Research (total enrollment: 4)

  Fall
  ▶ PHYS 485. — Directed Studies (total enrollment: 1)
  ▶ PHYS 691. — Research (total enrollment: 5)
- **RESEARCH PROJECTS DURING 2008**

  **Federal**
  - Cyclotron-Based Nuclear Science, *Department of Energy*, coworkers: V. Goldberg (Visiting Scientist), L. Trache (Research Scientist), A. Zhanov (Research Scientist), A. Bannu (P), B. Roeder (P), M. McCleskey (G), E. Simmons (G), A. Spiridon (G)
  - (REN) QCD and Standard Model Studies, *Department of Energy*, coworkers: P. Djawotho (P), J. Drachenberg (G), L. Huo (G)
  - QCD and Standard Model Studies, *Department of Energy*, coworkers: P. Djawotho (P), M. Sarsour (P)
  - Development of New Techniques to Determine Neutron and Charged-Particle Induced Reaction Rates, *National Nuclear Security Administration*, coworkers: L. Trache (P), A. Zhanov (P), M. McCluskey (G)

  **Private**
  - Extending the Capabilities of the Texas A&M University, Cyclotron Institute to Include Reaccelerated Radioactive Beams, *The Robert A. Welch Foundation*

- **PRESENTATIONS DURING 2008**
  - “Nuclear Physics and (the Nuclear Science Advisory Committee’s role in) Strategic Planning of the Isotope Program,” Workshop on the Nation’s Needs for Isotopes: Present and Future, August, 2008.(Invited)
  - “Latest Results on ρ and δ from Muon Decay,” Institute for Nuclear Theory program on Standard Model tests in the LHC era, Seattle, WA, October, 2008.(Invited)
  - “NSAC update for NuPECC,” NuPECC Meeting, Glasgow, Scotland, October, 2008.(Individual)
  - “Nuclear Astrophysics: The Need for Indirect Techniques and Nuclear Data,” NNDC symposium, Brookhaven National Lab, November, 2008.(Invited)
  - “Extracting Reliable Spectroscopic Factors from Transfer Reactions: A Case Study 14C(d, p)15C,” Kernz08, Queenstown, New Zealand, December, 2008.(Invited)

- **PUBLICATIONS DURING 2008**
  - Abdullah, T.A.; et al. (2008) AIP Conference Proceedings; Extracting the Asymptotic Normalization Coefficients in Neutron Transfer Reactions to Determine the Astrophysical Reaction Rates for 22Mg(p, γ)23Al and 17F(p, γ)18Ne 439.
  - Abelev, B.I.; et al. (2008) Spin Alignment Measurements of the K∗0(892) and φ(1020) Vector Meson in Heavy Ion Collisions at √sNN = 200 GeV *Physical Review C: Nuclear Physics*, vol. 77, 061902R.


Banu, A.; et al. (2008) AIP Conference Proceedings; Astrophysical S-factor of the $^{12}$N($p,\gamma$)$^{13}$O Reaction Determined from the ($^{12}$N,$^{13}$O) Proton Transfer Reaction 444.

Burjan, V.; et al. (2008) AIP Conference Proceedings; Asymptotic Normalization Coefficients from the $^{15}$N($^3$He,$d$)$^{16}$O Reaction and the Astrophysical Factor for the $^{15}$N($p,\gamma$)$^{16}$O reaction 323.

Fu, C.; et al. (2008) AIP Conference Proceedings; Proton Decay of $^{18}$Ne States Populated in the $^{14}$O + $^\alpha$ Resonance Interaction 144.


La Cognata, M.; et al. (2008) AIP Conference Proceedings; Indirect Measurement of $^{15}$N($p,\alpha$)$^{12}$C and $^{18}$O($p,\alpha$)$^{15}$N. Applications to the AGB Nucleosynthesis 105.

La Cognata, M.; et al. (2008) AIP Conference Proceedings; Recent Applications of the THM to the AGB Star Nucleosynthesis 485.


Pizzone R.G.; et al. (2008) AIP Conference Proceedings; AGB Fluorine Nucleosynthesis Studied by Means of the Trojan Horse Method: the Case of $^{15}N(p, \alpha)^{12}C$ 155.


Spitaleri, C.; et al. (2008) AIP Conference Proceedings; Recent Astrophysical Applications of the Trojan Horse Method to Nuclear Astrophysics 179.


• CHAIRS/PROFESSORSHIPS

• SERVICE DURING 2008
  National
  ▶ Committee/Panel: Scientific Committee on Antarctic Research (Member)

• TEACHING ASSIGNMENTS DURING 2008
  Spring
  ▶ PHYS 306. — Basic Astronomy (total enrollment: 109)
  ▶ PHYS 691. — Research (total enrollment: 2)
  Summer
  ▶ PHYS 691. — Research (total enrollment: 2)
  Fall
  ▶ PHYS 691. — Research (total enrollment: 2)

• RESEARCH PROJECTS DURING 2008
  Federal
  ▶ Collaborative Research: Three-Dimensional Simulations of Type Ia Supernovae Constraining Models with Observations, National Science Foundation, coworkers: S. Gooding (G)

• PRESENTATIONS DURING 2008
  ▶ “Astronomy from Antarctica,” AAS Session, January, 2008.( Individual)
  ▶ “Problems with Supernova Cosmology,” 5th Italian-Sino Workshop on Relativistic Astrophysics, Taiwan, May, 2008.( Invited)
  ▶ “The Dark Universe Observed from Antarctica,” Workshop on Dark Matter/Energy Strategic Planning of China, Beijing, China, October, 2008.( Invited)
• “Message from Spectropolarimetry,” Tokyo University, Tokyo, Japan, November, 2008. (Invited)

• PUBLICATIONS DURING 2008
• **CHAIRS/PROFESSORSHIPS**
  - Ed Rachal Chair in High Energy Physics [2007]

• **ADDITIONAL UNIVERSITY TITLES HELD DURING 2008**
  - Interim Dean, Office of Graduate Studies, [2007]
  - Associate Dean for Undergraduate Research, Vice President for Research, [2005]

• **SERVICE DURING 2008**
  
  **National**
  - Editorial/Board: Department of Energy (Review: Proposals), National Science Foundation, MRI (Review: Proposals)
  - Committee/Panel: National Science Foundation (Review Panel)

  **State**
  - Committee/Panel: Graduate Education Advisory Committee of THECB (Member)

  **University**
  - Committee/Panel: Council of Deans Committee (Member), Graduate Operations Committee (Chair), Provost Administrative Team Committee (Member), Quality Enhancement Plan and Executive Committee (Member), Research Roadmap Steering Committee (Member), Vice President for Research Search Committee (Member)

  **College**
  - Committee/Panel: Diversity Committee (Member)

  **Department**
  - Committee/Panel: Experimental HEP Search Committee (Member), Graduate Council Committee (Member)

• **TEACHING ASSIGNMENTS DURING 2008**
  
  **Summer**
  - PHYS 685. — *Directed Studies* (total enrollment: 1)
  - PHYS 691. — *Research* (total enrollment: 1)

  **Fall**
  - PHYS 685. — *Directed Studies* (total enrollment: 1)
  - PHYS 691. — *Research* (total enrollment: 1)

• **RESEARCH PROJECTS DURING 2008**
  
  **Federal**
  - High Energy Physics at Texas A&M, *Department of Energy*
• High Energy Physics at Texas A&M, Department of Energy
• Center for the Integration of Research, Teaching and Learning (CIRTL) Network; Lead Institution, University of Wisconsin, National Science Foundation, coworkers: M. Simms (G)

• PUBLICATIONS DURING 2008
• SERVICE DURING 2008

University
▷ Committee/Panel: Council of Principal Investigators (Member), Texas A&M Research Foundation Advisory Committee (Member)

Department
▷ Committee/Panel: Graduate Curriculum Committee (Chair), Graduate Program Committee (Chair), Graduate Student Recruitment Committee (Member), Shop Committee (Chair), Undergraduate Student Recruitment Committee (Member)

• TEACHING ASSIGNMENTS DURING 2008

Spring
▷ PHYS 201. — College Physics (total enrollment: 133)
▷ PHYS 485. — Directed Studies (total enrollment: 1)
▷ PHYS 691. — Research (total enrollment: 5)

Summer
▷ PHYS 201. — College Physics (total enrollment: 14)
▷ PHYS 691. — Research (total enrollment: 4)

Fall
▷ PHYS 691. — Research (total enrollment: 4)

• RESEARCH PROJECTS DURING 2008

Federal
▷ Atomic-Scale Analysis of Type-II Superlattice Detector Structures, Department of Defense, coworkers: M. Fuller (G), K. Kanedy (G), F. Lopez (G), M. Priolo (G), M. Wood (G), E. Hill (U)
▷ Mid-Infrared Technologies for Health and the Environment, National Science Foundation, coworkers: M. Fuller (G), K. Kanedy (G), F. Lopez (G), M. Priold (G), M. Wood (G), E. Hall (U)

• PRESENTATIONS DURING 2008

• SERVICE DURING 2008

International
▷ Advisory Board: International Council of the Optical Society of America (Member)

National
▷ Event: 36th Winter Colloquium on Quantum Electronics (Organizer)
▷ Editorial/Board: *Journal of Modern Optics* (Member), *Journal of Modern Optics* (Co-Editor), *Journal of Modern Optics* (Member), *New Journal of Physics*, *Journal of Molecular Spectroscopy* (Referee: Journals)

College
▷ Committee/Panel: Faculty Advisory Council (Elected Member), Tenure and Promotion Advisory Committee (Member)

Department
▷ Event: Chemistry Festival (Participant), Physics Festival (Participant)
▷ Committee/Panel: AMO Faculty Search Committee (Chair), Long Range Planning Committee (Member)

• TEACHING ASSIGNMENTS DURING 2008

Spring
▷ PHYS 327. — Experimental Physics (total enrollment: 26)
▷ PHYS 691. — Research (total enrollment: 2)

Summer
▷ PHYS 691. — Research (total enrollment: 1)

Fall
▷ PHYS 691. — Research (total enrollment: 1)

• RESEARCH PROJECTS DURING 2008

Private
▷ Non-Invasive Blood Glucose Monitoring-Texas A&M and Aretais Corporation, Aretais, Inc

• PRESENTATIONS DURING 2008

▷ “Subwavelength Imaging via Dark States,” 38th Winter Colloquium on the Physics of Quantum Electronics, Snowbird, UT, January, 2008.( Individual)
▷ “CARS and FAST-CARS Detection of Biological Molecules such as Glucose and Cholesterol,” 17th International Laser Physics Workshop, Trondheim, Norway, June, 2008.( Individual)
• PUBLICATIONS DURING 2008
• SERVICE DURING 2008

National
▷ Editorial/Board: Department of Energy and National Science Foundation (Review: Proposals)

Department
▷ Event: Chemistry Open House (Participant), Hawking Science Fair (Participant)
▷ Committee/Panel: Graduate Admissions Committee (Member), High Energy Experiment Search Committee (Member)

• TEACHING ASSIGNMENTS DURING 2008

Spring
▷ PHYS 485. — Directed Studies (total enrollment: 1)
▷ PHYS 666. — Scientific Instrument Making (total enrollment: 9)
▷ PHYS 691. — Research (total enrollment: 2)

Summer
▷ PHYS 666. — Scientific Instrument Making (total enrollment: 18)
▷ PHYS 691. — Research (total enrollment: 2)

Fall
▷ PHYS 218. — Mechanics (total enrollment: 220)
▷ PHYS 485. — Directed Studies (total enrollment: 3)
▷ PHYS 666. — Scientific Instrument Making (total enrollment: 9)
▷ PHYS 691. — Research (total enrollment: 2)

• RESEARCH PROJECTS DURING 2008

Federal
▷ High Energy Physics at Texas A&M, Department of Energy
▷ High Energy Physics at Texas A&M, Department of Energy
▷ DUSEL R&D SIGN-Scintillation and Ionization in Gaseous Neon, National Science Foundation, coworkers: T. Stiegler (G), C. Camp (U), Z. Marquez (U), A. Rodionov (U)
▷ DUSEL R&D: New WIMP Detector Technique Based on High Pressure Xenon Gas, National Science Foundation, coworkers: T. Stiegler (G)

Private
▷ Construction of the LUX Dark Matter Experiment at the Sanford Underground Science and Engineering Laboratory, Brown University

Industrial
Multichamber Gas Proportional Counter for Screening Ultra-Low Background and Materials and Identifying Radioactive Contaminants, Phase II, Reeves and Sons LLC, coworkers: T. Stiegler (G), C. Camp (U), Z. Marquez (U), P. Robert (U), A. Rodiono (U)

**PRESENTATIONS DURING 2008**
- “A Pressurized Gas Approach to WIMP Detection,” University of New Mexico, Albuquerque, NM, February, 2008. (Individual)

**PUBLICATIONS DURING 2008**
• SERVICE DURING 2008

International
▷ Editorial/Board: Israel Science Foundation, United States-Israel Binational Science Foundation (Review: Proposals), Journal of Modern Physics, Modern Physics Letter, Europhysics (Referee: Journals)

National

• TEACHING ASSIGNMENTS DURING 2008

Spring
▷ MSEN 685. — Directed Studies (total enrollment: 1)
▷ PHYS 202. — College Physics (total enrollment: 85)
▷ PHYS 691. — Research (total enrollment: 4)

Summer
▷ PHYS 218 — Mechanics (total enrollment: 54)
▷ PHYS 691. — Research (total enrollment: 4)

Fall
▷ PHYS 202. — College Physics (total enrollment: 90)
▷ PHYS 691. — Research (total enrollment: 2)

• RESEARCH PROJECTS DURING 2008

Federal
▷ Emergent Behavior in Magnet-Superconductor Hybrids, Department of Energy, coworkers: Z. Ye (P), I. Schultz (G)
▷ Probing Superconducting Fluctuations on Mesoscopic Scales: Conductance Fluctuations and Oscillations, and Electron Tunneling, National Science Foundation, coworkers: J. Chiang (G), H. Liu (G), A. Nandyala (G), I. Schultz (G), Z. Ye (G), H. Zhang (G)

• PRESENTATIONS DURING 2008


“Template Based Deposition of Nanotube/Nanowire Arrays,” Texas A&M University Student Research Week, College Station, TX, March, 2008. (Individual)


“Dynamics of Coherent Acoustic and Optical Phonons in Bi and Ag Nan Wires Studied by a Femtosecond Pump-Probe Technique,” Conference on Ultrafast Phenomena, Stresa, Italy, June, 2008. (Individual)

“Is the Superconductor-Insulator Transition a Duality Quantum Phase Transition?,” Department of Physics, University of Southern California, Los Angeles, CA, September, 2008. (Individual)


**PUBLICATIONS DURING 2008**


• **TEACHING ASSIGNMENTS DURING 2008**
  
  **Spring**
  
  ▶ PHYS 208. — *Electricity and Optics* (total enrollment: 125)
  
  ▶ PHYS 691. — *Research* (total enrollment: 2)
  
  **Summer**
  
  ▶ PHYS 691. — *Research* (total enrollment: 1)
  
  **Fall**
  
  ▶ PHYS 218. — *Mechanics* (total enrollment: 100)
  
  ▶ PHYS 691. — *Research* (total enrollment: 1)
  
• **RESEARCH PROJECTS DURING 2008**
  
  **Federal**
  
  ▶ Cyclotron-Based Nuclear Science, *Department of Energy*
  
  **Private**
  
  ▶ (REN) Study of Nuclei at High Excitations, *The Robert A. Welch Foundation*
• **ADDITIONAL UNIVERSITY TITLES HELD DURING 2008**
  ▶ Associate Director, Institute for Quantum Studies (IQS), , [2001/]

• **SERVICE DURING 2008**
  **International**
  ▶ Event: 3rd International Symposium on Quantum Optics (Chair), International Symposium on Quantum Optics, KCAST (Chair)
  ▶ Committee/Panel: 8th Asian Quantum Informatics Symposium Program Committee (Chair), Space Allocation Committee Texas A&M University-Qatar (Member)

  **National**

  **Department**
  ▶ Committee/Panel: Graduate Admissions Committee (Member)

• **TEACHING ASSIGNMENTS DURING 2008**
  **Spring**
  ▶ PHYS 208 — Electricity and Optics (total enrollment: 80)

  **Summer**
  ▶ PHYS 691. — Research (total enrollment: 3)

  **Fall**
  ▶ PHYS 674 — Introduction to Quantum Computing (total enrollment: 8)
  ▶ PHYS 691. — Research (total enrollment: 3)

• **RESEARCH PROJECTS DURING 2008**
  **International**
  ▶ Quantum Entanglement for Secure Communication, Qatar Foundation

• **PRESENTATIONS DURING 2008**
  ▶ “Quantum Lithography and Microscopy,” Workshop on Entanglement and Quantum Decoherence, Nara, Japan, January, 2008.( Invited)
“Quantum Lithography with Classical Light,” Texas A&M University, College Station, TX, March, 2008. (Individual)

“Is reality really real? From Albert Einstein to John Bell and Beyond,” Khwarizmi Society, Lahore, Pakistan, May, 2008. (Individual)


“Quantum Lithography: With or without Entanglement,” Frontiers of Quantum and Mesoscopic Thermodynamics, Prague, Czech Republic, July, 2008. (Invited)


“Beyond the Rayleigh Limit in Optical Lithography,” Texas A&M University, College Station, TX, October, 2008. (Individual)

“Sub-wavelength Lithography,” Quantum Optics IV, Florianópolis, Brazil, October, 2008. (Invited)

“Beyond the Rayleigh Limit in Optical Lithography,” The Chinese University of Hong Kong, Hong Kong, December, 2008. (Invited)

PUBLICATIONS DURING 2008


Sun, Q.; Al-Amri, M.; Zubairy, M.S. (2008) Probing the Quantum Commutation Rules
through Cavity QED Physical Review A: Atomic Molecular and Optical Physics, vol. 79, 043801.


7. Research Activity, 2008

This section contains information on all funded research activity for the calendar year 2008. Information was initially reported by faculty and verified whenever possible through the granting agency. Because of calculations and rounding there is a small margin of error.

*Information reported by faculty:*

- Title
- Granting Agency
- PIs, Co-PIs, and co-workers (internal/external)
- Total Funding
- Indirect Costs
- Start & End Dates

*Calendar year calculations:*

- Total - Indirect = Direct
- \# Days Total Grant = End Date - Start Date
- Daily Grant Award = Total Funding Reported / \# Days Total Grant
- Grant Award for 2008 = \# Days 2008 \times Daily Grant Award
7.1 Summary of Research Support, 2008

<table>
<thead>
<tr>
<th>Grantee</th>
<th>Title</th>
<th>Start</th>
<th>End</th>
<th>Direct</th>
<th>Indirect</th>
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<td><strong>Federal Agencies</strong></td>
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<td><strong>Air Force Office of Scientific Research</strong></td>
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<tr>
<td>Belyanin, A.A.</td>
<td>New Mid/Far-Infrared CW Room-Temperature Semiconductor Lasers Based on Intralaser Wave-Mixing Technique, (with: A. Belyanin, V. Kocharovsky)</td>
<td>5/15/2005</td>
<td>5/31/2008</td>
<td>12,017</td>
<td>1,562</td>
<td>13,579</td>
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<tr>
<td>Belyanin, A.A.</td>
<td>New Widely Tunable Room Temperature Terahertz Coherent Sources</td>
<td>7/1/2005</td>
<td>6/30/2008</td>
<td>16,504</td>
<td>2,340</td>
<td>18,844</td>
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<tr>
<td>Kocharovskaya, O.A.</td>
<td>Laser Manipulations of Nuclear Transitions</td>
<td>2/14/2005</td>
<td>2/14/2008</td>
<td>21,174</td>
<td>0</td>
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<tr>
<td>Kocharovsky, V.V.</td>
<td>New Mid/Far-Infrared CW Room-Temperature Semiconductor Lasers Based on Intralaser Wave-Mixing Technique, (with: A. Belyanin, V. Kocharovsky)</td>
<td>5/15/2005</td>
<td>5/31/2008</td>
<td>12,017</td>
<td>1,562</td>
<td>13,579</td>
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<td><strong>Subtotal:</strong> Air Force Office of Scientific Research</td>
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<td>61,713</td>
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<td><strong>Department of Defense</strong></td>
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<tr>
<td>Sokolov, A.V.</td>
<td>(REN) Ultrashort Laser Pulse Propagation in Water, (with: G. Kattawar, A. Sokolov)</td>
<td>5/1/2008</td>
<td>4/30/2009</td>
<td>80,475</td>
<td>0</td>
<td>80,475</td>
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<tr>
<td>Weimer, M.B.</td>
<td>Atomic-Scale Analysis of Type-II Superlattice Detector Structures</td>
<td>9/1/2005</td>
<td>8/31/2008</td>
<td>34,397</td>
<td>15,534</td>
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2008 Physics Annual Report
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**Fermi National Accelerator Laboratory**

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**Subtotal: National Science Foundation**

- Office of Naval Research

**Subtotal: Office of Naval Research**

- Sandia National Laboratories

**Subtotal: Sandia National Laboratories**

- Space Telescope Science Institute

2008 PHYSICS ANNUAL REPORT
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* Subtotal: Space Telescope Science Institute  
25,671 5,671 31,241

- **U.S. Army**

| Fry, E.S.   | Bioaerosol Sampling and Collection: Optics and Forward Scattering by Aerosols | 9/1/2003    | 12/31/2008  | 48,833  | 20,710   | 69,543  |
| Fry, E.S.   | Devices for Effective Sampling of Bioaerosol                             | 4/10/2008   | 4/6/2009    | 57,473  | 0        | 57,473  |

* Subtotal: U.S. Army  
134,730 33,644 168,374

- **U.S. Civilian Research and Development Foundation**


* Subtotal: U.S. Civilian Research and Development Foundation  
15,132 0 15,132

* Subtotal: Federal Agencies  
7,833,675 720,148 8,554,023

**Industrial/Corporate Agencies**

- **North American Electric Reliability Corporation**

| Sinova, J. | NRI Center: South West Academy of Nanoelectronics                    | 9/1/2006    | 12/31/2009  | 44,988  | 0        | 44,988  |

* Subtotal: North American Electric Reliability Corporation  
44,988 0 44,988

- **Reeves and Sons LLC**

**SEC. 7.**

**RESEARCH ACTIVITY**

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International Agencies

- Qatar Foundation

| Schuessler, H.A. | Utilizing Laser Spectroscopy of Noble Gas Traces for Mapping Oil and Gas Deposits | 12/1/2007 | 11/30/2010 | 249,983 | 0 | 249,983 |
| Zubairy, M.      | Quantum Entanglement for Secure Communication                         | 1/1/2008  | 12/31/2011 | 58,034  | 25,046   | 83,080  |
| **Subtotal:** Qatar Foundation |                                   |          |            | 308,017 | 25,046   | 333,062 |
| **Subtotal:** INTERNATIONAL AGENCIES |                               |          |            | 308,017 | 25,046   | 333,062 |

Other Government

- Kansas State University

| Sokolov, A.V.   | Attosecond Optical Technology Based on Recollision and Gating, (with: G. Paulus, A. Sokolov) | 5/1/2007  | 4/30/2012 | 7,765   | 0 | 7,765   |
| **Subtotal:** Kansas State University |                                                    |          |            | 15,529  | 0 | 15,529  |
| **Subtotal:** OTHER GOVERNMENT |                                                   |          |            | 15,529  | 0 | 15,529  |

Private/Non-Profit Agencies

- Alfred P. Sloan Foundation

| Mioduszewski, S. | Alfred P. Sloan Fellowship | 10/1/2006 | 9/30/2008 | 16,829  | 0 | 16,829  |
| **Subtotal:** Alfred P. Sloan Foundation |                                                   |          |            | 16,829  | 0 | 16,829  |
| **Subtotal:** Areteis, Inc |                                               |          |            |         |   |        |

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2008 PHYSICS ANNUAL REPORT
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SEC. 7.

RESEARCH ACTIVITY 757
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* Subtotal: The Robert A. Welch Foundation

744,495 0 744,495

* Subtotal: Private/Non-Profit Agencies

984,755 40,000 1,024,764

State Agencies

- Texas A&M University

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**Subtotal: State Agencies**

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  - Teizer, W. | Center for Nanoscale Science and Technology | 9/1/2002 | 8/31/2008 | 12,200 | 0 | 12,200 |
  - * Subtotal: College of Science | | | | | | 12,200 |

- Texas A&M University International Center
  - Teizer, W. | (REN) International Research Travel Grant: Conductance of Molecular Magnets in Mechanical Break Junctions | 6/1/2007 | 5/31/2008 | 496 | 0 | 496 |
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- Texas Engineering Experiment Station

SEC. 7. RESEARCH ACTIVITY 759
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| **Allen, R.E.**       | Response of Materials and Biological Molecules to Light              | 6/1/2006 | 5/31/2009 | 50,000 | 0        | 50,000 |
| The Robert A. Welch   |                                                                        |         |         |        |          |        |
| Foundation            |                                                                        |         |         |        |          |        |
| **Subtotal Allen, R.E.** |                                                                  |         |         | 50,000 | 0        | 50,000 |

| **Bassichis, W.H.**   | TAMU STEPS: Physics, Engineering, and Mathematics (PEM) Model, (with: W. Bassichis, M. Pilant, T. Scott) | 9/1/2003 | 8/31/2008 | 38,022 | 0        | 38,022 |
| National Science      |                                                                        |         |         |        |          |        |
| Foundation            |                                                                        |         |         |        |          |        |
| **Subtotal Bassichis, W.H.** |                                                                |         |         | 38,022 | 0        | 38,022 |

| National Science      |                                                                        |         |         |        |          |        |
| Foundation            |                                                                        |         |         |        |          |        |
| **Subtotal Becker, K.** |                                                                  |         |         | 58,750 | 0        | 58,750 |

| National Science      |                                                                        |         |         |        |          |        |
| Foundation            |                                                                        |         |         |        |          |        |
| **Subtotal Becker, K.** |                                                                  |         |         | 88,709 | 0        | 88,709 |

| National Science      |                                                                        |         |         |        |          |        |
| Foundation            |                                                                        |         |         |        |          |        |
| **Subtotal Becker, K.** |                                                                  |         |         | 88,709 | 0        | 88,709 |

SEC. 7. RESEARCH ACTIVITY 761
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762  2008 PHYSICS ANNUAL REPORT
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Subtotal Dutta, B. | 177,533 | 0 | 177,533 |

Subtotal Fry, E.S. | 234,087 | 56,580 | 290,667 |

Subtotal Gagliardi, C.A. | 128,333 | 0 | 128,333 |

Subtotal QCD and Standard Model Studies, (with: C. Gagliardi, R. Tribble) | 468,515 |

Subtotal (REN) QCD and Standard Model Studies, (with: C. Gagliardi, R. Tribble) | 8,376 | 0 | 8,376 |

SEC. 7. RESEARCH ACTIVITY 763
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**Ko, C.**

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RESEARCH ACTIVITY  
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    - Toward Understanding the QGP with the STAR Experiment at RHIC
  - Alfred P. Sloan Foundation
    - Alfred P. Sloan Fellowship

- **Nanopoulos, D.V.**
  - Department of Energy
  - Department of Energy
  - National Science Foundation
    - Electromagnetic and Informational Processes in Biomolecular Polymers, (with: D. Nanopoulos, H. Schuessler)

- **Naugle, D.G.**
  - Department of Energy
    - Emergent Behavior in Magnet-Superconductor Hybrids, (with: I. Lyuksyutov, D. Naugle, W. Wu)
  - National Science Foundation (REN)
    - Intrinsic Interactions Between Superconductivity and Magnetism in Quaternary and Pseudoquaternary Borocarbides
  - The Robert A. Welch Foundation
    - The Influence of Surfaces, Reduced Dimensionally and Disorder on the Properties of Solids
      - Start: 6/1/2006  End: 5/31/2009  Direct: 60,000  Indirect: 0  Total: 60,000

- **Papovich, C.**

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• Scully, M.G.

| The Robert A. Welch Foundation| Quantum Coherence and Decoherence in Atomic Molecular and Solid State Systems: Continuation and Extensions | 6/1/2002   | 5/31/2008  | 12,405     | 0          | 12,405    |
| • Subtotal Scully, M.G.       |                                                                      |            |            | 390,289    | 35,007     | 425,275   |

• Sezgin, E.

| • Subtotal Sezgin, E.         |                                                                      |            |            | 58,750     | 0          | 58,750    |

• Sinova, J.
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* Subtotal Sinova, J.  

** Sokolov, A.V. **

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<td>(REN) Ultrashort Laser Pulse Propagation in Water, (with: G. Kattawar, A. Sokolov)</td>
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<td>Attosecond Optical Technology Based on Recollision and Gating, (with: G. Paulus, A. Sokolov)</td>
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<td>20,685</td>
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* Subtotal Sokolov, A.V.  

SEC. 7. RESEARCH ACTIVITY 773
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<td><strong>Collaborative Research: Three-Dimensional Simulations of Type Ia Supernovae Constraining Models with Observations, (with: K. Krisicunas, N. Suntzeff, L. Wang)</strong></td>
<td>7/1/2007</td>
<td>6/30/2012</td>
<td>41,984</td>
<td>2,348</td>
<td>44,332</td>
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**Subtotal Suntzeff, K.B.**

| 55,790 | 2,348 | 58,138 |

| **National Science Foundation** | **NUE: Infusing Nanomaterials into Undergraduate Science and Engineering Curricula** | 9/1/2005  | 8/31/2008 | 6,281   | 2,575    | 8,856  |
| **The Robert A. Welch Foundation** | **(REN) Enhanced Anisotropy of Molecular Nanomagnets** | 6/1/2007  | 5/31/2010 | 50,000  | 0        | 50,000 |
| **University of Texas College of Science** | **Nanotechnology and Its Impact on Construction** | 9/1/2007  | 8/31/2008 | 4,120   | 1,872    | 5,992  |
| **Texas A&M University Inter- national Center** | **Center for Nanoscale Science and Technology** | 9/1/2002  | 8/31/2008 | 12,200  | 0        | 12,200 |
| **Texas Engineering Experiment Station** | **(REN) International Research Travel Grant: Conductance of Molecular Magnets in Mechanical Break Junctions** | 6/1/2007  | 5/31/2008 | 496     | 0        | 496    |
| **Texas Engineering Experiment Station** | **Purchase of a Laser-Interferometer State for Electron Beam Lithography** | 12/1/2005 | 5/31/2008 | 33,114  | 0        | 33,114 |

**Subtotal Teizer, V.**

| 173,912 | 4,447 | 178,360 |

| **Toback, D.** |

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<td>7/1/2007</td>
<td>6/30/2012</td>
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<td>Reeves and Sons LLC</td>
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- Wu, W.

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- Youngblood, D.H.

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<tr>
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<td>1/1/2008</td>
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<td>58,034</td>
<td>25,046</td>
<td>83,080</td>
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| *Subtotal Zubairy, M.* | 58,034 | 25,046 | 83,080 |

| ***Total: All Faculty | 9,469,372 | 798,438 | 10,267,810 |
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1. Foreword from Department Head ........................................ 781
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1. Foreword from the Department Head

This annual report summarizes the activities during 2008 of the Statistics faculty in their teaching, research, and service.

New Major Research Grants Awarded in 2008

▷ KAUST (King Abdullah University of Science and Technology) Global Research Partnership grant (James Calvin will serve as Principal Investigator for the Institute for Applied Mathematics and Computational Science)

Honors and Awards

*The faculty of the Department of Statistics was recognized with numerous honors and awards.*

▷ Dr. Bani Mallick was elected to Fellow of the Institute of Mathematical Statistics.

▷ Dr. Michael Speed was named a member of the College of Science 2008 Academy of Distinguished Former Students.

▷ Drs. Cliff Spiegelman and Simon Sheather were awarded the Statistics in Chemistry Award for their collaborative effort on the paper "Chemical and Forensic Analysis of JFK assassination bullet lots: Is a second shooter possible?"

Several of the department’s graduate students received awards.

▷ Soutir Bandyopadhyay and Douparno Ghosh were both awarded an ASA Travel Award to attend the 2008 SRCOS (Southern Regional Council on Statistics Summer Research Conference.

▷ Soutir Bandyopadhyay received the JSM Student Paper award from the Section on Nonparametric Statistics of the American Statistical Association.

▷ Min Chen received a $5,000 scholarship from Quintiles, global leader in pharmaceutical services.

▷ Mandy Hering received the Philanthropic Educational Organization (PEO) Scholar Award. This award provides a $10,000 fellowship for a woman pursuing a graduate degree.

▷ Arnab Maity received four awards. He received the Innovative Biomedical Application Award, the R. L. Anderson Student Paper award and an ASA Travel Award, all from SRCOS. In addition, he also received the Best Student Paper award (Theory Section).

▷ Olga Savchuk was selected to receive the 2008 Emanuel Parzen Research Fellowship Award.

Departmental Events

▷ The 2008 Parzen Prize was awarded to Nancy Reid (University Professor of Statistics at the University of Toronto) and Professor Marvin Zelen (Lemuel Shattuck Research Professor of Statistical Science at the Harvard School of Public Health. The prize ceremony was held on May 13, 2008 followed by a banquet at the Hilton Hotel to celebrate the career of Manny Parzen.

▷ The 13th annual Advanced Placement Summer Institute for high school teachers was held in July. Ms. Kathy Fritz, Chair of the Math Department at Plano West, Senior High School was the lead presenter, with Dr. Jamis Perrett, Assistant Professor in the Department of Statistics, serving as director.

▷ The department hosted the Aggie Reunion at the Joint Statistical meetings in Denver, CO. At the reception, former student, Todd Ogden of Brigham Young University, was recognized...
as being named the 2008 Hartley Award recipient and the 2007 Conner Award was presented to current students, Kristin Lennox & Brad Barney. There was also a special presentation for Fred Lombard for eight years of outstanding service as a visiting faculty member.

▷ In August, the department held its fourth annual New Graduate Student Conference. Our current supported students mentored our new incoming graduate students. Faculty members involved were Fred Dahm, Michael Longnecker, Simon Sheather, Henrik Schmiediche and H. Joseph Newton. From other departments, Dr. Kim Anh Do of MD Anderson spoke to the students during the ”Meet the Faculty” section of the orientation.

▷ The Department celebrated its fourth Annual Faculty Retreat in August. The retreat was designed for the faculty to have more direct interaction with one another. The retreat focused on strategic planning, on line learning, the new Ph.D. program, as well as the new departmental website.

▷ In September, StataCorp invited our entire department to their facilities for a mix and mingle social event. The Data Analysis and Statistical Software Company graciously hosted the event to further strengthen and encourage the working relationship between their company and our department.

▷ The department hosted the newly established Statistics Alumni Board member and their spouses at the first on-campus meeting of the board in October. Topics of discussion included distance education and Technology, employment for Aggies, a career enhancement day for our students, fund raisers and colloquiums for online students.

▷ After 38 years of faithful service to the Statistics Department and to TAMU, Dr. James Matis, celebrated his second retirement in November with a party at the Veranda.

Faculty Updates

▷ Derya Akleman, May Boggess, and Ellen Toby have been promoted to the rank of Senior Lecturer

▷ Dr. Jianhua Huang has been promoted to the rank of Professor of Statistics.
2. Departmental Statistics

This section contains information, clarified by each department and gathered from the following sources:

I. Personnel

Tenure-Track Faculty

▷ Queried from the College of Science Faculty Database. (Fall 2007) Baselines_Title, Gender, Ethnicity, Queried from the College of Science Dean Database (Fall 2008) FacultyList_FINAL.

Non-Tenure-Track Faculty

▷ Provided by the Department (Fall 2007), Queried from the College of Science Dean Database (Fall 2008) FacultyList_nonTTF.

Postdoctoral Fellows

▷ Provided by the Department

Graduate Student/Undergraduate Majors

▷ Office of Institutional Studies and Planning (OISP). (Fall 2007, Fall 2008) Enrollment Profile, Headcount by Major by Level, Fall for [Year].

Support Staff

▷ Provided by the Department

II. Instructional Activities

Graduate Semester Credit Hours/Undergraduate Semester Credit Hours

▷ SCH: Undergraduate and Graduate - Office of Institutional Studies and Planning (OISP). (Fall 2008) SCH Summaries by College for [Semester] [Year].

PhD Degrees/Masters Degrees

▷ Queried from COGNOS and the College of Science Dean Database Degrees_Grad.

Undergraduate Degrees

▷ Queried from COGNOS and the College of Science Dean Database Degrees_Undergrad.

III. Research Activities

Research Publications

▷ Queried from Web of Science® and compiled from the College of Science Dean Database Publications_COUNT.

Research Presentations

▷ As reported by faculty and compiled from the College of Science Dean Database Presentations_COUNT.

Federal/State/University/Private/Industrial/International/Other Government

▷ Gathered from research proposals, research award notices, as reported by faculty, compiled from the College of Science Dean Database, Sec. 7.1 of following department annual report.
## 2.1 Statistical Abstract

### I. Personnel

<table>
<thead>
<tr>
<th>Category</th>
<th>2007</th>
<th>2008</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>a. Tenured and Tenure-Track Faculty</strong></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Professor</td>
<td>16</td>
<td>18</td>
</tr>
<tr>
<td>Assistant Professor</td>
<td>9</td>
<td>11</td>
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<tr>
<td>Associate Professor</td>
<td>6</td>
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<tr>
<td>Distinguished Professor</td>
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<td><strong>b. Non-Tenure-Track Faculty</strong></td>
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<td>10</td>
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<tr>
<td>Visiting Professor</td>
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<td>3</td>
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<tr>
<td>Visiting Assistant Professor</td>
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<td>0</td>
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<tr>
<td>Visiting Associate Professor</td>
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<td>0</td>
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<tr>
<td>Lecturer</td>
<td>5</td>
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<tr>
<td>Senior Lecturer</td>
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<td>5</td>
</tr>
<tr>
<td>Assistant Lecturer</td>
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<td>0</td>
</tr>
<tr>
<td><strong>c. Postdoctoral Fellows</strong></td>
<td>7</td>
<td>4</td>
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<tr>
<td><strong>d. Graduate Majors</strong></td>
<td>131</td>
<td>136</td>
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<td><strong>f. Support Staff</strong></td>
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<td>12</td>
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### II. Instructional Activities

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<thead>
<tr>
<th>Category</th>
<th>2007</th>
<th>2008</th>
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<td><strong>a. Graduate Semester Credit Hours</strong></td>
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<tr>
<td><strong>b. Undergraduate Semester Credit Hours</strong></td>
<td>13,479</td>
<td>14,361</td>
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<tr>
<td><strong>c. PhD Degrees</strong></td>
<td>6</td>
<td>4</td>
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<tr>
<td><strong>d. Masters Degrees</strong></td>
<td>18</td>
<td>27</td>
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<tr>
<td><strong>e. Undergraduate Degrees</strong></td>
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### III. Research Activities

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<tr>
<th>Category</th>
<th>2007</th>
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<td><strong>a. Research Publications</strong></td>
<td>108</td>
<td>94</td>
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<td><strong>b. Research Presentations</strong></td>
<td>103</td>
<td>114</td>
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<tr>
<td><strong>c. Federal</strong></td>
<td>3,500,690</td>
<td>4,722,796</td>
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<td><strong>d. State</strong></td>
<td>0</td>
<td>0</td>
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<tr>
<td><strong>e. University</strong></td>
<td>0</td>
<td>0</td>
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<td><strong>f. Private/Non-Profit</strong></td>
<td>7,647</td>
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<td><strong>g. Industrial/Corporate</strong></td>
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<td><strong>h. International</strong></td>
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<tr>
<td><strong>i. Other Govt</strong></td>
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<tr>
<td><strong>Total</strong></td>
<td><strong>3,519,533</strong></td>
<td><strong>7,296,170</strong></td>
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3. Honors & Awards, 2008

By Faculty

▷ This section contains all honors and awards, as reported by individual faculty members, during the calendar year 2008.

By Students

▷ This section contains all honors and awards, as reported by the department, during the calendar year 2008.
### 3.1 Honors & Awards Received by Faculty, 2008

<table>
<thead>
<tr>
<th>Name</th>
<th>Award</th>
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</thead>
<tbody>
<tr>
<td>B. Mallick</td>
<td>Fellow, Institute of Mathematical Statistics</td>
</tr>
<tr>
<td>S. Sheather</td>
<td>Statistics in Chemistry, American Statistical Association</td>
</tr>
<tr>
<td>M. Sherman</td>
<td>Member, International Statistical Institute</td>
</tr>
<tr>
<td>F. Speed</td>
<td>Member, Academy of Distinguished Former Students</td>
</tr>
<tr>
<td>C. Spiegelman</td>
<td>Statistics in Chemistry, American Statistical Association</td>
</tr>
</tbody>
</table>
## 3.2 Honors & Awards Received by Students, 2008

**Graduate**

- 2007 Connor Award
  - Brad Barney
  - Kristin Lennox

- ASA Travel Award to attend the 2008 Southern Regional Council on Statistics (SRCOS) Summer Research Conference in South Carolina, SRCOS
  - Soutir Bandyopadhyay
  - Souparno Ghosh

- ASA Travel Award, SRCOS
  - Arnab Maity

- Best Student Paper Award at the IISA Conference
  - Arnab Maity

- Innovative Biomedical Application Award, SRCOS
  - Arnab Maity

- JSM
  - Kristin Lennox

- JSM Student Paper Award
  - Soutir Bandyopadhyay

- Parzen Graduate Research Fellowship
  - Olga Savchuk

- Philanthropic Educational Organization (PEO) Scholar Award
  - Mandy Hering

- Quintiles Scholarship
  - Min Chen

- R. L. Anderson Student Paper Award, SRCOS
  - Soutir Bandyopadhyay
  - Souparno Ghosh
  - Arnab Maity
4. Students, 2008

This section contains all degrees awarded, as reported by the department, during the calendar year 2008.
4.1 Graduate Degrees Awarded, 2008

Fall

▶ M.S.

Theresa Boswell  Advisor(s): M. Boggess
Jiefeng Chen  Advisor(s): S. Subba Rao
Lianfu Chen  Advisor(s): R. Fan
Qi Gao  Advisor(s): M. Longnecker
Lin Li  Advisor(s): J. Huang
Jeffrey Ryan Stanley  Advisor(s): F. Speed
Pailin Vongseng  Advisor(s): A. Dabney
Lei Wang  Advisor(s): M. Sherman
Xuan Wang  Advisor(s): B. Mallick
Yuliang Xu  Advisor(s): E. Parzen
Yanze Zhang  Advisor(s): S. Wang

Spring

▶ M.S.

Curtis Reed Alexander  Advisor(s): F. Speed
Yue Ji  Advisor(s): F. Liang
Courtney Annie Norris  Advisor(s): P. Dahm
Andrew Middleton Redd  Advisor(s): S. Sheather
Qing Wang  Advisor(s): J. Huang
Mingqi Wu
Summer

▷ M.S.

Heng Gu
Advisors(s): J. Huang

Betik Theodor Kyriakopoulos
Advisors(s): S. Subba Rao

You Jin Lee
Advisors(s): M. Boggess

Jie Li
Advisors(s): D. Cline

Huijun Pan
Advisors(s): J. Huang

Kandice Kathleen Raymond
Advisors(s): W. West

Kuan-wei Tseng
Advisors(s): M. Longnecker

Qi Wang
Advisors(s): J. Hart

Ganggang Xu
Advisors(s): S. Wang

Minhe Yu
Advisors(s): F. Liang

▷ Ph.D.

Min Chen
Modeling Covariance Structure in Unbalanced Longitudinal Data
Advisors(s): J. Huang

Nysia Inet George
Mixture Modeling and Outlier Detection in Microarray Data Analysis
Advisors(s): N. Wang

Jae Sik Jeong
Some Applications of Wavelets to Time Series Data
Advisors(s): M. Vannucci

Arnab Maity
Efficient Inference in General Semiparametric Regression Models
Advisors(s): R. Carroll
5. Colloquium and Seminar Speakers, 2008

<table>
<thead>
<tr>
<th>Date</th>
<th>Speaker</th>
<th>Affiliation</th>
<th>Topic</th>
</tr>
</thead>
<tbody>
<tr>
<td>1/15/2008</td>
<td>Rajib Paul</td>
<td>Ohio State University</td>
<td>Mechanistic Bayesian Hierarchical Models: Examples and MCMC Approaches</td>
</tr>
<tr>
<td>1/17/2008</td>
<td>Tanzy Love</td>
<td>Carnegie Mellon University</td>
<td>Discovery of Latent Patterns with Hierarchical Bayesian Mixed-Membership Models and the Issue of Model Choice</td>
</tr>
<tr>
<td>1/24/2008</td>
<td>Lan Zhou</td>
<td>Texas A&amp;M University</td>
<td>Joint Modeling of Paired Sparse Functional Data Using Principal Components</td>
</tr>
<tr>
<td>1/29/2008</td>
<td>Huiyan Sang</td>
<td>Duke University</td>
<td>Bayesian Hierarchical Modeling for Extreme Values Observed Over Space and Time</td>
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<tr>
<td>1/30/2008</td>
<td>May Boggess</td>
<td>Texas A&amp;M University</td>
<td>Evaluating Kidney Function in Dogs-Building Your Own Maximum Likelihood Estimator in Stata</td>
</tr>
<tr>
<td>1/31/2008</td>
<td>Jonathan Stroud</td>
<td>The Wharton School of the University of Pennsylvania</td>
<td>Dynamic Models for Satellite Images</td>
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<tr>
<td>2/6/2008</td>
<td>Bodhisattva Sen</td>
<td>University of Michigan</td>
<td>Bootstrap in Some Non-Standard Problems</td>
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<tr>
<td>2/7/2008</td>
<td>David Matteson</td>
<td>University of Chicago</td>
<td>High Dimensional Volatility Models</td>
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<tr>
<td>2/12/2008</td>
<td>Guang Cheng</td>
<td>Statistical and Applied Mathematical Sciences Institute</td>
<td>Higher Order Semiparametric Inference Based on the Profile Likelihood</td>
</tr>
<tr>
<td>2/21/2008</td>
<td>Lie Wang</td>
<td>The Wharton School of the University of Pennsylvania</td>
<td>A Difference Based Method in Nonparametric Function Estimation</td>
</tr>
<tr>
<td>2/26/2008</td>
<td>Mohsen Pourahmadi</td>
<td>Northern Illinois University</td>
<td>Sparse and Parsimonious Models for the Covariance Matrix of Correlated Data</td>
</tr>
<tr>
<td>3/5/2008</td>
<td>Alan Dabney</td>
<td>Texas A&amp;M University</td>
<td>Some Problems in Protein Mass Spectrometry</td>
</tr>
<tr>
<td>3/6/2008</td>
<td>Peter Robinson</td>
<td>London School of Economics</td>
<td></td>
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Nonparametric Regression with Spatial Data

3/20/2008  Colin Wu
National Institutes of Health
Nonparametric Estimation for Conditional Distribution Functions and Time-Varying Transformation Models with Longitudinal Data

4/3/2008  Yazhen Wang
University of Connecticut
Modeling and Analyzing High-Frequency Financial Data

4/10/2008  Joon Park
Texas A&M University
The Spatial Analysis of Time Series

4/17/2008  Dan Nordman
Iowa State University
Tapered Empirical Likelihood for Time Series Data

4/24/2008  Hongtu Zhu
University of North Carolina
Statistical Analysis of MR Diffusion Weighted Imaging

4/30/2008  Cliff Spiegelman
Texas A&M University
Forensics: Opportunities for Statisticians to Contribute to Justice

5/8/2008  Irina Irincheeva
University of Geneva
Generalized Linear Latent Variable Models with Flexible Distribution of Latent Variables

5/13/2008  Emanuel Parzen
Texas A&M University
United Applicable Statistics, Confidence Quantiles, Philosophy of Statistical Science, Statistical Education

5/13/2008  Nancy Reid
University of Toronto
Composite Likelihood Inference in Complex Models

5/13/2008  Marvin Zelen
Harvard University
The Early Detection of Disease and Stochastic Models

5/14/2008  John Rayner
University of Newcastle
My Brother is a Hairy Man, but I am a Smooth Man

7/31/2008  Arnab Maity
Texas A&M University
Testing in Semiparametric Models with Interaction, with Applications to Gene-Environment Interactions

8/1/2008  Nysia I. George
Texas A&M University
Mixture Modeling and Outlier Detection in Microarray Data Analysis

9/4/2008  Peng Huang  
*Johns Hopkins University*  
The Use of Global Statistical Test in Clinical Trials with Multiple Primary Outcomes

9/11/2008  Jeffrey S. Morris  
*The University of Texas MD Anderson Cancer Center*  
Bayesian Inference for High Dimensional Functional and Image Data Using Functional Mixed Models

9/18/2008  Chunsheng Ma  
*Wichita State University*  
Construction of Non-Gaussian Random Fields with any Given Correlation Structure

9/25/2008  Chunfeng Huang  
*Indiana University*  
Nonparametric Estimation of Variogram and its Spectrum

10/2/2008  Anton Schick  
*Binghamton University*  
Efficient Estimation in Infinite Constraint Models-An Empirical Likelihood Approach

10/9/2008  Alan Dabney  
*Texas A&M University*  
Protein Quantitation in Liquid Chromatography Mass Spectrometry

10/16/2008  Dennis Cox  
*Rice University*  
A Bayesian Hierarchical Model for Classification with Selection of Functional Predictors

10/23/2008  Huixia Wang  
*North Carolina State University*  
Locally Weighted Censored Quantile Regression

10/30/2008  Krishna B. Athreya  
*Iowa State University*  
Scaling Limits of Branching Processes with Spatial Movement

11/6/2008  Hernando Ombao  
*Brown University*  
Spectral Analysis of Brain Signals: Signal Representation and Classification

11/12/2008  Uschi Müller-Harknett  
*Texas A&M University*  
Efficient Estimation in Semiparametric Regression with Possibly Incomplete Data

11/13/2008  Samiran Ghosh  
*Indiana University-Purdue University Indianapolis*  
An Imputation Bases Approach for Parameter Estimation in the Presence of Ambiguous Censoring with Application in Industrial Supply Chain Data

11/18/2008  Daren B.H. Cline
<table>
<thead>
<tr>
<th>Date</th>
<th>Author</th>
<th>Affiliation</th>
<th>Title</th>
</tr>
</thead>
<tbody>
<tr>
<td>11/20/2008</td>
<td>Jun Shao</td>
<td>University of Wisconsin</td>
<td>Generalized Method of Moment in Panel Data Models with Measurement Error</td>
</tr>
<tr>
<td>11/21/2008</td>
<td>Seokho Lee</td>
<td>Texas A&amp;M University</td>
<td>Sparse Principal Component Analysis for Binary Data</td>
</tr>
</tbody>
</table>
6. Faculty, 2008

Derya G. Akleman ................................................. Senior Lecturer
May Boggess .......................................................... Senior Lecturer
James A. Calvin ................................................... Professor
Julie H. Carroll .................................................... Senior Lecturer
Raymond J. Carroll ............................................. Distinguished Professor
Willa W. Chen ..................................................... Associate Professor
Daren B.H Cline ................................................... Professor
Alan R. Dabney .................................................... Assistant Professor
David B. Dahl ...................................................... Assistant Professor
P. Fred Dahl ....................................................... Professor
Ruzong Fan .......................................................... Associate Professor
Marc G. Genton ................................................... Associate Professor
Jeffrey D. Hart ................................................... Professor
Keith L. Hatfield ................................................... Lecturer
Jianhua Z. Huang .................................................. Professor
Mikyoung Jun ...................................................... Assistant Professor
Soumendra N. Lahiri ............................................... Professor
Erning Li ............................................................. Assistant Professor
Faming Liang ...................................................... Associate Professor
Michael T. Longnecker ........................................... Professor
Yanyuan Ma ........................................................ Professor
Bani K. Mallick .................................................... Professor
Yunming Mu ........................................................ Professor
Ursula U. Mueller-Harknett .................................... Assistant Professor
H. Joseph Newton ................................................ Professor
Emanuel Parzen ................................................ Distinguished Professor
Jamis J. Perrett .................................................... Assistant Professor
Mohsen Pourahmadi ............................................... Professor
Huiyan Sang ........................................................ Assistant Professor
Henrik Schmiediche ............................................ Senior Lecturer
Simon J. Sheather ................................................ Professor
Michael Sherman ................................................ Professor
Samiran Sinha ..................................................... Assistant Professor
F. Michael Speed ................................................ Professor
Clifford H. Spiegelman .......................................... Professor
Suhasini Subba Rao ............................................ Assistant Professor
Ellen H. Toby ...................................................... Senior Lecturer
Marina Vannucci ................................................ Professor
Naisyin Wang ...................................................... Professor
Suoqin Wang ...................................................... Professor
Thomas E. Wehrly ................................................ Professor
Webster West ....................................................... Associate Professor
Jessica Wickersham ............................................. Lecturer
Lan Zhou ............................................................ Assistant Professor
Li Zhu ............................................................... Assistant Professor (J)
Joel Zinn ............................................................. Professor (J)
*For the Annual Report, Faculty are defined as tenure and non-tenure track employees who were employed at any time during 2008 (01/01/2008-12/31/2008).
6.1 Professional Activities, 2008

This section contains information, as reported by individual faculty members, encompassing each faculty member’s professional activities for the calendar year 2008.

Subsections of professional activities are defined as follows:

Honors and Awards
▷ All professional honors and awards, both internal and external.

Service Activities
▷ All professional service and leadership roles, including: departmental, college, university, state, national and international.

Teaching
▷ Classes taught during the Spring, Summer and Fall sessions of 2008.
▷ Any missing enrollment numbers were gathered from the Student Information Management System (SIMS) at Texas A&M University.

Research Projects
▷ All research projects, funded and unfunded.
▷ Whenever possible, all research-related employees of that faculty member are listed along with the citation. Key for employees: (P)=Postdoc, (G)=Graduate Student, (U)=Undergraduate Student.
▷ Renewals are marked by “(REN)” at the beginning of their title.
▷ Unfunded grants are marked by “(UNFUNDED)” at the end of the citation.
▷ Additional information (including PIs, CoPIs, and funding) on all funded grants are listed in Section 6.

Presentations
▷ All posters, invited and contributed lectures (plenary, conferences, colloquia, seminars, etc.).
▷ Whenever reported, posters, invited and contributed lectures are noted in parentheses following the citation.
▷ Citations are in chronological order.

Publications
▷ All printed materials published during 2008.
▷ Pre-press, in-press and submitted publications were not included.
▷ Citations were formatted in APA Style and are in alphabetical order by lead author.
• SERVICE DURING 2008

University
▷ Committee/Panel: Faculty Senate (Caucus Leader), Faculty Senate (Faculty Senator - 07)

College
▷ Committee/Panel: Diversity Committee (Member)

• TEACHING ASSIGNMENTS DURING 2008

Spring
▷ STAT 651. — Statistics in Research I (total enrollment: 58)
▷ STAT 652. — Statistics in Research II (total enrollment: 43)

Summer
▷ STAT 651. — Statistics in Research I (total enrollment: 82)
▷ STAT 652. — Statistics in Research II (total enrollment: 46)

Fall
▷ STAT 651. — Statistics in Research I (total enrollment: 66)
▷ STAT 652. — Statistics in Research II (total enrollment: 50)
• **ADDITIONAL UNIVERSITY TITLES HELD DURING 2008**
  > Undergraduate Advisor, Statistics Undergraduate Advising Office, Statistics, [2008]

• **SERVICE DURING 2008**
  National
  > Event: Quantitative Biology Seminar (Speaker)
  > Editorial/Board: Canine Heartworm Caval Syndrome; Outcome in 42 dogs (Reviewer)
  
  College
  > Committee/Panel: Faculty Advisory Council (Elected Member)
  
  Department
  > Service Position: Aggie Actuaries Student Club (Mentor), STAT 684 Statistics Department Graduate Students Help Desk (Consultant), UBM (Faculty Advisor)
  > Professional Affiliation: Actuarial Study Group MATH 489 (Participant)
  > Event: Brown Bag Lunch (Speaker)
  > Committee/Panel: New Faculty Orientation on Promotion and Tenure (Member)

• **TEACHING ASSIGNMENTS DURING 2008**
  Spring
  > STAT 307. — Sample Survey Techniques (total enrollment: 14)
  > STAT 408. — Introduction to Linear Models (total enrollment: 22)
  
  Summer
  > STAT 485. — Directed Studies (total enrollment: 1)
  > STAT 685. — Directed Studies (total enrollment: 1)
  
  Fall
  > STAT 307. — Sample Survey Techniques (total enrollment: 20)
  > STAT 407. — Principles of Sample Surveys (total enrollment: 12)
  > STAT 485. — Directed Studies (total enrollment: 2)
  > STAT 684. — Professional Internship (total enrollment: 13)
  > STAT 685. — Directed Studies (total enrollment: 1)

• **PRESENTATIONS DURING 2008**
• ADDITIONAL UNIVERSITY TITLES HELD DURING 2008
  ▶ Interim Vice President for Research, Vice President for Research, [2007]
  ▶ Member, Interdisciplinary Faculty, Bioinformatics, [2006]
  ▶ Member, Interdisciplinary Faculty, Toxicology, [2006]
  ▶ Executive Associate Vice President for Research, Vice President for Research, [2004]
  ▶ Professor, Epidemiology and Biostatistics, School of Rural Public Health, [1998]

• SERVICE DURING 2008

  National
  ▶ Event: Testified before the U.S. House of Representatives Committee on Science and Technology's Subcommittee on Research and Science Education (Speaker)
  ▶ Ad Hoc Committee: NIEHS Environmental Health Sciences Committee (Chair)
  ▶ Committee/Panel: Association of American Universities (Board Member), National Institute for Statistical Science, Community Relations & Development Committee (Member), Oak Ridge Associated Universities (Board of Consulting Editors)

  State
  ▶ Committee/Panel: Health Science/Life Science Advisory Council (Board Member), Texas Healthcare and Biosciences Institute (Board of Directors)

  University
  ▶ Committee/Panel: Academic Program Council (Member), Intellectual Property Constituents Committee (Member), Provost Advisory Team Member President’s Council (Member), Texas A&M Research Foundation (Ex-Officio), University Time & Effort Reporting Committee (Co-Chair)

• RESEARCH PROJECTS DURING 2008

  Other
  ▶ Institute for Applied Mathematics and Computational Science (IAMCS) at Texas A&M University at The King Abdullah University of Science and Technology Global Research Partnership, King Abdullah University of Science and Technology

• PRESENTATIONS DURING 2008

  ▶ “Applied Mathematics and Computational Science Center,” KAUST Computational Infrastructure for Collaborative Research, College Station, TX, 2008. (Individual)
• SERVICE DURING 2008
  Department
  ▶ Committee/Panel: Undergraduate Service Committee (Member)

• TEACHING ASSIGNMENTS DURING 2008
  Spring
  ▶ STAT 303. — Statistical Methods (total enrollment: 136)
  Fall
  ▶ STAT 303. — Statistical Methods (total enrollment: 120)
• ADDITIONAL UNIVERSITY TITLES HELD DURING 2008
  ▶ Director, Center for Statistical Bioinformatics, Statistics, [2007]
  ▶ Member, Interdisciplinary Faculty, Bioinformatics, [2006]
  ▶ Member, Interdisciplinary Faculty, Nutrition, [2006]
  ▶ Member, Interdisciplinary Faculty, Toxicology, [2006]

• SERVICE DURING 2008
  National
  ▶ Committee/Panel: IMS Committee on Nominations (Chair)
  Department
  ▶ Committee/Panel: Promotion and Tenure Committee (Member)

• TEACHING ASSIGNMENTS DURING 2008
  Spring
  ▶ STAT 651. — Statistics in Research I (total enrollment: 30)
  ▶ STAT 681. — Seminar (total enrollment: 18)
  ▶ STAT 685. — Directed Studies (total enrollment: 2)
  ▶ STAT 691. — Research (total enrollment: 4)
  Summer
  ▶ STAT 685. — Directed Studies (total enrollment: 3)
  ▶ STAT 691. — Research (total enrollment: 6)
  Fall
  ▶ STAT 612. — Theory of Linear Models (total enrollment: 12)
  ▶ STAT 681. — Seminar (total enrollment: 13)
  ▶ STAT 691. — Research (total enrollment: 6)

• RESEARCH PROJECTS DURING 2008
  Federal
  ▶ Nutritional Countermeasures to Radiation Exposure, National Aeronautics and Space Administration
  ▶ Bayesian Models for Gene Expression with Microarray Data, National Institutes of Health
  ▶ (REN) Measurement Error, Nutrition and Breast/Colon Cancer, National Institutes of Health
  ▶ (REN) Training Program in Biostatistics, Bioinformatics, and Nutrition, National Institutes of Health
Private
▷ Nutritional Countermeasures to Radiation-Enhanced Colon Cancer, Baylor College of Medicine

Other
▷ Genome-Wide Structured Association Testing and Regional Admixture Mapping, University of Alabama-Birmingham

• PRESENTATIONS DURING 2008
▷ Academia Sinica, Taiwan, 2008. (Invited)
▷ Fu-Jen University, China, 2008. (Invited)
▷ Harvard University, Cambridge, MA, 2008. (Invited)
▷ Joint Statistical Meetings, 2008. (Invited)
▷ National Seoul University, 2008. (Invited)
▷ National University of Singapore, Singapore, 2008. (Invited)
▷ Southern Regional Conference on Statistics, 2008. (Invited)
▷ University of Wollongong, Australia, 2008. (Invited)

• PUBLICATIONS DURING 2008


WILLA W. CHEN

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STAT-Econometric Time Series Analysis wchen@stat.tamu.edu

• SERVICE DURING 2008

  National
  ▶ Editorial/Board: JASA, Applications and Case Studies (Associate Editor), Annals of
  Statistics (Referee: Journals)
  ▶ Committee/Panel: DMS-Statistics NSF (Panelist)

  Department
  ▶ Committee/Panel: Recruiting Committee (Member)

• TEACHING ASSIGNMENTS DURING 2008

  Summer
  ▶ STAT 626. — Methods in Time Series Analysis (total enrollment: 13)

  Fall
  ▶ STAT 685. — Directed Studies (total enrollment: 1)

• RESEARCH PROJECTS DURING 2008

  Federal
  ▶ Long Memory Time Series Modelling: Computational and Statistical Efficiency, Nonsta-
  tionarity/Noninvertibility and Goodness of Fit, National Science Foundation

• PRESENTATIONS DURING 2008

  ▶ NBER/NSF Time Series Conference, Aarhus, Denmark, 2008.(Individual)
  ▶ Texas A&M University, Department of Economics, College Station, TX, 2008.(Individual)
• SERVICE DURING 2008

National

College
▷ Committee/Panel: Faculty Advisory Council (Elected Member)

Department
▷ Committee/Panel: Ad hoc Committee for Graduate Program Revision (Member), Theory Qualifying Exam (Chair)

• TEACHING ASSIGNMENTS DURING 2008

Spring
▷ STAT 614. — *Probability for Statistics* (total enrollment: 20)
▷ STAT 685. — *Directed Studies* (total enrollment: 1)

Fall
▷ STAT 614. — *Probability for Statistics* (total enrollment: 6)
▷ STAT 615. — *Stochastic Processes* (total enrollment: 10)

• PRESENTATIONS DURING 2008

▷ “Brown Bag Seminar,” Department of Statistics, Texas A&M University, College Station, TX, 2008. (Invited)
• SERVICE DURING 2008

National

• TEACHING ASSIGNMENTS DURING 2008

  Spring
  ▶ STAT 211.(H) — **Principles of Statistics I** (total enrollment: 15)

  Summer
  ▶ STAT 685. — **Directed Studies** (total enrollment: 1)

  Fall
  ▶ STAT 211.(H) — **Principles of Statistics I** (total enrollment: 15)
  ▶ STAT 685. — **Directed Studies** (total enrollment: 1)

• RESEARCH PROJECTS DURING 2008

  Federal
  ▶ Quantifying Protein Abundance from Mass Spectrometry Experiments Using the AMT Tag Pipeline, *Battelle - Pacific Northwest National Laboratory*
  ▶ Mechanisms of Eicosapentanoic Acid and Estrogen Effects in Colon Cancer, *Department of Health and Human Services*
  ▶ Statistical Methods for Protein Identification and Quantitation in Protein Mass Spectrometry, *Pacific Northwest National Laboratory*

  Private
  ▶ Ability of n-3 Fatty Acids to Influence Colon Tumor Formation by Modulating Estrogen Action, *American Institute for Cancer Research*

• PRESENTATIONS DURING 2008
  ▶ PNNL Proteomics Group, Richland, WA, August, 2008. (Invited)

• PUBLICATIONS DURING 2008
• SERVICE DURING 2008

National
▷ Editorial/Board: Biostatistics and Bayesian Analysis (Referee: Journals)

State
▷ Committee/Panel: Southeast Texas Chapter of the American Statistical Association (Vice President)

Department
▷ Committee/Panel: Bioinformatics Faculty Committee (Member), Computing Committee (Member)

• TEACHING ASSIGNMENTS DURING 2008

Spring
▷ STAT 691. — Research (total enrollment: 1)

Summer
▷ STAT 691. — Research (total enrollment: 2)

Fall
▷ STAT 651. — Statistics in Research I (total enrollment: 77)
▷ STAT 691. — Research (total enrollment: 1)

• RESEARCH PROJECTS DURING 2008

Federal
▷ Side Chain Driven Refinement of Protein Structure, National Institutes of Health

• PRESENTATIONS DURING 2008

▷ “Using Prior Information in Bayesian Nonparametric Models,” University of Texas, M. D. Anderson Cancer Center, Houston, TX, April, 2008. (Invited)
▷ “Distance-Based Probability Models for Set Partitions and Its Application in Bayesian Nonparametric Model,” Joint Statistical Meetings, Denver, CO, August, 2008. (Contributed)
▷ “Distance-Based Probability Distribution on Set Partitions with Applications to Protein Structure Prediction,” Brigham Young University, Provo, UT, December, 2008. (Invited)

• PUBLICATIONS DURING 2008

• ADDITIONAL UNIVERSITY TITLES HELD DURING 2008
  ▶ Graduate Advisor, Statistics Graduate Advising Office, Statistics, [1989]

• SERVICE DURING 2008
  National
  ▶ Editorial/Board: Various Journals (Referee: Journals)

  University
  ▶ Committee/Panel: AFS Awards Selection Committee (Member), Presidential Award of Excellence for Faculty Service to International Students Selection Committee (Member)

  College
  ▶ Committee/Panel: Graduate Instruction Committee (Member)

  Department
  ▶ Committee/Panel: Admissions and Recruiting Committee (Chair), Awards Committee (Member), CONACYT Admissions Review Committee (Member), Methods Qualifying Examination Committee (Chair), Promotion and Tenure Committee (Member)

• TEACHING ASSIGNMENTS DURING 2008
  Spring
  ▶ STAT 644. — Biostatistics II (total enrollment: 9)
  ▶ STAT 685. — Directed Studies (total enrollment: 2)
  ▶ STAT 691. — Research (total enrollment: 1)

  Summer
  ▶ STAT 691. — Research (total enrollment: 1)

  Fall
  ▶ STAT 643. — Biostatistics I (total enrollment: 10)
  ▶ STAT 691. — Research (total enrollment: 1)

• PRESENTATIONS DURING 2008
  ▶ “Careers in Statistics,” Texas A&M UniversitySummer 2008 REU Participants, College Station, TX, 2008.( Invited)
RUZONG FAN
ASSOCIATE PROFESSOR (979) 845-3152 rfan@stat.tamu.edu
STAT-Stat. Genetics, Applied Probability

- ADDITIONAL UNIVERSITY TITLES HELD DURING 2008
  - Member, Interdisciplinary Faculty, Genetics, [2006]

- SERVICE DURING 2008
  National
  - Editorial/Board: American Journal of Human Genetics, Genetic Epidemiology, PLoS Genetics, Genetics, Biometrics, Advances in Bioinformatics, Computational Statistics & Data Analysis (Referee: Journals)
  Department
  - Research Group: Bioinformatics (Member)
  - Event: Colloquia-Special Events (Participant)

- TEACHING ASSIGNMENTS DURING 2008
  Spring
  - STAT 661. — Statistical Genetics (total enrollment: 14)
  - STAT 681. — Seminar (total enrollment: 31)
  - STAT 685. — Directed Studies (total enrollment: 1)
  Fall
  - STAT 685. — Directed Studies (total enrollment: 1)

- RESEARCH PROJECTS DURING 2008
  Federal
  - Genetic Basis for Exercise Training Responses, Department of Health and Human Services
  - Haplotype Linkage and Association Mapping of Quantitative Trait Loci, National Science Foundation

- PRESENTATIONS DURING 2008
  - MD Anderson Cancer Center, Houston, TX, September, 2008. (Invited)
  - Division of Biostatistics, University of Minnesota, Minneapolis, MN, October, 2008. (Invited)

- PUBLICATIONS DURING 2008
• SERVICE DURING 2008
  
  International
  ▷ Editorial/Board: *Chilean Journal of Statistics* (Associate Editor)

  National
  ▷ Editorial/Board: *Journal of the American Statistical Association* (Associate Editor)

  Department
  ▷ Committee/Panel: Examination Committee (Member), Faculty Recruiting Committee (Member)

• TEACHING ASSIGNMENTS DURING 2008

  Spring
  ▷ STAT 691. — Research (total enrollment: 1)

  Summer
  ▷ STAT 691. — Research (total enrollment: 1)

  Fall
  ▷ STAT 691. — Research (total enrollment: 2)

• RESEARCH PROJECTS DURING 2008

  Federal
  ▷ A Unified Framework for Statistical Modeling with Multivariate Skewed Distributions and Application to Spatial Selection Models, *National Science Foundation*
  ▷ CMG Research: Statistical Analysis of Large Non-Gaussian Datasets in Climate Science, *National Science Foundation*

• PUBLICATIONS DURING 2008


*On leave.*
• SERVICE DURING 2008

National

Department
▷ Event: ASA Section on Nonparametric Statistics (Judge)
▷ Committee/Panel: Grant Opportunities Committee (Member), Promotion and Tenure Committee (Chair)

• TEACHING ASSIGNMENTS DURING 2008

Spring
▷ STAT 611. — Theory of Statistics II (total enrollment: 26)
▷ STAT 685. — Directed Studies (total enrollment: 1)
▷ STAT 691. — Research (total enrollment: 3)

Summer
▷ STAT 685. — Directed Studies (total enrollment: 1)
▷ STAT 691. — Research (total enrollment: 2)

Fall
▷ STAT 632. — Statistical Decision Theory (total enrollment: 26)
▷ STAT 652. — Statistics in Research II (total enrollment: 42)
▷ STAT 691. — Research (total enrollment: 4)

• RESEARCH PROJECTS DURING 2008

Federal
▷ Cluster-Based Bootstrapping in Multiple Hypotheose Testing, National Science Foundation

• PUBLICATIONS DURING 2008

▷ Hart, J.D. (2008) Smoothing-inspired Lack-of-fit Tests Based on Ranks. Beyond Para-
• TEACHING ASSIGNMENTS DURING 2008

Spring
▷ STAT 211 — Principles of Statistics I (total enrollment: 210)

Fall
▷ STAT 211 — Principles of Statistics I (total enrollment: 225)
• SERVICE DURING 2008

International
▷ Editorial/Board: Sankhya, Science in China, Statistics and its Inference (Referee: Journals)

National
▷ Committee/Panel: NSF DMS/Probability & Statistics CAREER AWARD (Review Panel)

• TEACHING ASSIGNMENTS DURING 2008

Spring
▷ STAT 685. — Directed Studies (total enrollment: 1)
▷ STAT 689. — Special Topics in (total enrollment: 15)
▷ STAT 691. — Research (total enrollment: 3)

Summer
▷ STAT 685. — Directed Studies (total enrollment: 1)
▷ STAT 691. — Research (total enrollment: 4)

Fall
▷ STAT 689. — Special Topics in (total enrollment: 13)
▷ STAT 691. — Research (total enrollment: 3)

• RESEARCH PROJECTS DURING 2008

Federal
▷ Collaborative Research: Statistical Learning and Object Oriented Data Analysis, National Science Foundation

• PRESENTATIONS DURING 2008

▷ World Congress of Engineering, 2008.( Invited)
▷ Joint Statistical Meeting, Denver, CO, August, 2008.( Invited)

• PUBLICATIONS DURING 2008


• SERVICE DURING 2008

International
▷ Editorial/Board: Journal of the Korean Statistical Society (Associate Editor)

National
▷ Committee/Panel: ASA/ENVR Student Award Committee (Member)

Department
▷ Committee/Panel: Graduate Student Admissions Committee (Member)

• TEACHING ASSIGNMENTS DURING 2008

Spring
▷ STAT 211. — Principles of Statistics I (total enrollment: 62)
▷ STAT 685. — Directed Studies (total enrollment: 1)

• RESEARCH PROJECTS DURING 2008

Federal
▷ CMG Research: Statistical Analysis of Large Non-Gaussian Datasets in Climate Science, National Science Foundation

• PRESENTATIONS DURING 2008

▷ “Nonstationary Covariance Models for Global Data,” Department of Statistics, Rice University, Houston, TX, September, 2008. (Invited)
▷ “Nonstationary Covariance Models for Global Data,” Department of Biostatistics, University of Texas MD Anderson Cancer Center, Houston, TX, November, 2008. (Invited)

• PUBLICATIONS DURING 2008

• SERVICE DURING 2008

International
▷ Committee/Panel: International Indian Statistical Association Program Committee (Member)

National
▷ Committee/Panel: Conference in Honor of Professor Hira Koul, Michigan State University (Co-Chair)

State
▷ Editorial/Board: Sankhya, Series A (Editor), Statistical Methodology (Associate Editor)

College
▷ Committee/Panel: Tenure and Promotion Advisory Committee (Member)

Department
▷ Committee/Panel: Curriculum Committee (Member)

• TEACHING ASSIGNMENTS DURING 2008

Spring
▷ STAT 691. — Research (total enrollment: 2)

Summer
▷ STAT 691. — Research (total enrollment: 2)

Fall
▷ STAT 620. — Statistical Large Sample Theory (total enrollment: 25)
▷ STAT 691. — Research (total enrollment: 2)

• RESEARCH PROJECTS DURING 2008

Federal
▷ (REN) Higher Order Accuracy of Bootstrap Methods for Temporal and Spatial Processes, National Science Foundation
▷ Resampling Methods for Temporal and Spatial Processes and Their Higher Order Accuracy, National Science Foundation

• PRESENTATIONS DURING 2008


“Statistics for Space-Time Data,” Department of Mathematics and Statistics, Sam Houston State University, Huntsville, TX, November, 2008. (Invited)

• PUBLICATIONS DURING 2008
• SERVICE DURING 2008

National

Department
▷ Committee/Panel: Grant Opportunities Committee, EEO Officer (Member)

• PRESENTATIONS DURING 2008


FAMING LIANG
ASSOCIATE PROFESSOR (979) 845-8885
STAT-Bayesian Computation, Bioinformatics fliang@stat.tamu.edu

- SERVICE DURING 2008
  
  International
  ▶ Editorial/Board: *International Journal of Operations Research and Information Systems* (Member)

  National

- TEACHING ASSIGNMENTS DURING 2008

  Spring
  ▶ STAT 611. — *Theory of Statistics II* (total enrollment: 27)
  ▶ STAT 685. — *Directed Studies* (total enrollment: 4)

  Summer
  ▶ STAT 685. — *Directed Studies* (total enrollment: 2)

  Fall
  ▶ STAT 685. — *Directed Studies* (total enrollment: 1)
  ▶ STAT 691. — *Research* (total enrollment: 1)

- RESEARCH PROJECTS DURING 2008

  Federal
  ▶ Bayesian Models for Gene Expression with Microarray Data, *National Institutes of Health*
  ▶ (REN) Development of Stochastic Approximation Monte Carlo Methods, *National Science Foundation*

- PRESENTATIONS DURING 2008

  ▶ “Multiple Hypothesis Testing with Homogeneous Control Samples,” Workshop on Bioinformatics, Computational Biology and Systems Biology, Texas A&M University, College Station, TX, 2008. (Invited)


- PUBLICATIONS DURING 2008
• ADDITIONAL UNIVERSITY TITLES HELD DURING 2008
  › Associate Department Head, Statistics, /2005/
  › Graduate Advisor, Statistics Graduate Advising Office, Statistics, ]/

• SERVICE DURING 2008

  National
  › Committee/Panel: American Statistical Association Academic Representative (Member),
     American Statistical Association Committee on Recruitment and Retention of Membership
     (Member)

  College
  › Committee/Panel: College Quality Enhancement Plan Council (Member)

  Department
  › Service Position: Assistantship Duties (Chairman), Departmental Consulting Service
     (Chairman), Internship Program (Coordinator), Teaching Assignments (Chair)
  › Committee/Panel: Departmental Examinations Committee (Chair), Graduate Program
     Committee (Member), Graduate Service Committee (Member), Hartley Award Committee
     (Member), Methods Examination Committee (Chairman), SRPH Faculty Hiring Commit-
     tee (Member), Undergraduate Service Committee (Member)

• TEACHING ASSIGNMENTS DURING 2008

  Spring
  › STAT 642. — The Methods of Statistics II (total enrollment: 49)
  › STAT 684. — Professional Internship (total enrollment: 28)
  › STAT 685. — Directed Studies (total enrollment: 3)

  Summer
  › STAT 684. — Professional Internship (total enrollment: 15)
  › STAT 685. — Directed Studies (total enrollment: 2)

  Fall
  › STAT 641. — The Methods of Statistics I (total enrollment: 47)
  › STAT 684. — Professional Internship (total enrollment: 3)
  › STAT 685. — Directed Studies (total enrollment: 3)
  › STAT 691. — Research (total enrollment: 1)

• PUBLICATIONS DURING 2008
    Rice to Sugarcane Borer (Lepidoptera : Crambidae) Injury Environmental Entomology,
vol. 37, 796-807.
• SERVICE DURING 2008
National
▷ Editorial/Board: JASA, Biometrika, JRSSB, Biometrics, Metron, Statistica Sinica, Bernoulli (Referee: Journals)

• TEACHING ASSIGNMENTS DURING 2008
Fall
▷ STAT 211. — Principles of Statistics I (total enrollment: 42)

• RESEARCH PROJECTS DURING 2008
Federal
▷ Measurement Error, Missing Data, and Semiparametrics, National Cancer Institute

• PRESENTATIONS DURING 2008

• PUBLICATIONS DURING 2008

On leave.
• ADDITIONAL UNIVERSITY TITLES HELD DURING 2008
  ▷ Member, Interdisciplinary Faculty, Bioinformatics, [2006]
  ▷ Director, Bayesian Bioinformatics Lab, Statistics, []

• AWARDS DURING 2008
  National
    ▷ Fellow, Institute of Mathematical Statistics

• SERVICE DURING 2008
  National
    ▷ Editorial/Board: Biostatistics (Associate Editor)
  State
    ▷ Editorial/Board: Wiley (Advisory Board)
  Department
    ▷ Research Group: Bioinformatics Committee (Chair)
    ▷ Committee/Panel: Executive Committee of Institute for Applied and Computational Science (Member), Promotion and Tenure Committee (Member)

• TEACHING ASSIGNMENTS DURING 2008
  Spring
    ▷ STAT 685. — Directed Studies (total enrollment: 1)
    ▷ STAT 691. — Research (total enrollment: 7)
  Summer
    ▷ STAT 685. — Directed Studies (total enrollment: 1)
    ▷ STAT 691. — Research (total enrollment: 3)
  Fall
    ▷ STAT 691. — Research (total enrollment: 6)

• RESEARCH PROJECTS DURING 2008
  Federal
    ▷ Support of Stockpile Stewardship Program, Lawrence Livermore National Laboratory
    ▷ Bayesian Models for Gene Expression with Microarray Data, National Institutes of Health
    ▷ (REN) Measurement Error, Nutrition and Breast/Colon Cancer, National Institutes of Health
A Unified Framework for Statistical Modeling with Multivariate Skewed Distributions and Application to Spatial Selection Models, *National Science Foundation*

CMG Research: Statistical Analysis of Large Non-Gaussian Datasets in Climate Science, *National Science Foundation*

Multiscale Data Integration Using Facies Based Hierarchical Bayesian Models, *National Science Foundation*

**PRESENTATIONS DURING 2008**

- Indian Statistical Institute, India, 2008. (Invited)
- Joint Statistical Meetings, 2008. (Invited)
- University of Michigan, Ann Arbor, MI, 2008. (Invited)
- University of Washington, Seattle, WA, 2008. (Invited)

**PUBLICATIONS DURING 2008**


No report received from faculty member.
• SERVICE DURING 2008

National

College
▷ Committee/Panel: Diversity Committee (Member)

Department
▷ Event: Brown Bag (Speaker), Visits and Colloquium Talks (Host/Organizer)
▷ Editorial/Board: StatLinks Departmental Newsletter (Contributor)
▷ Committee/Panel: Evaluation Committee for the Parzen Graduate Research Fellowship (Member), Graduate Student Qualifying Exam Committee (Member)

• TEACHING ASSIGNMENTS DURING 2008

Spring
▷ STAT 651. — Statistics in Research I (total enrollment: 26)

Summer
▷ STAT 691. — Research (total enrollment: 1)

Fall
▷ STAT 610. — Theory of Statistics I (total enrollment: 57)
▷ STAT 651. — Statistics in Research I (total enrollment: 72)
▷ STAT 681. — Seminar (total enrollment: 18)
▷ STAT 691. — Research (total enrollment: 1)

• PRESENTATIONS DURING 2008

▷ “Efficient Estimators for Nonlinear Regression Models with Responses Missing at Random,” University of Texas, Dallas, TX, October, 2008. (Invited)

• PUBLICATIONS DURING 2008

832 2008 Statistics annual report

• CHAIRS/PROFESSORSHIPS
  ▶ George P. Mitchell '40 Chair in Statistics [2006]
  ▶ Richard H. Harrison III/External Advisory and Development Council Endowed Dean’s Chair in Science [2000]

• ADDITIONAL UNIVERSITY TITLES HELD DURING 2008
  ▶ Dean, Main Office, College of Science, [2002]

• SERVICE DURING 2008
  University
  ▶ Committee/Panel: College of Geosciences Search Advisory Committee (Chair), Council on the Research Environment (Chair), Intellectual Property Constituent Committee (Member), Transportation Services Advisory Committee (Manager), Vice President for Research Search Advisory Committee (Member)

  College
  ▶ Committee/Panel: Executive Committee (Chair)

• RESEARCH PROJECTS DURING 2008
  Federal
  ▶ Center for the Application of Information Technology in the Teaching and Learning of Science, National Science Foundation
  ▶ Noyce Scholarship (Supplement to ITS Center Grant), National Science Foundation
  ▶ Supplement to the ITS Center, National Science Foundation
EMANUEL PARZEN

DISTINGUISHED PROFESSOR  (979) 845-3188
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• SERVICE DURING 2008
  College
  ▷ Committee/Panel: Distinguished Professors Executive Committee (Member)
  Department
  ▷ Editorial/Board: Communications in Statistics (Associate Editor)
  ▷ Committee/Panel: Parzen Prize Local (Chair)

• TEACHING ASSIGNMENTS DURING 2008
  Spring
  ▷ STAT 685. — Directed Studies (total enrollment: 2)
  Fall
  ▷ STAT 671. — Methods of Statistical Data Modeling I (total enrollment: 3)

• PRESENTATIONS DURING 2008
  ▷ Texas A&M Statistics Department, College Station, TX, May, 2008.( Invited)
  ▷ Stanford University Statistics Department, Stanford, CA, June, 2008.( Invited)

• PUBLICATIONS DURING 2008
• SERVICE DURING 2008

National
▷ Editorial/Board: Joint Statistical Meeting (Session Chair)

Department
▷ Service Position: Comprehensive Exam (Coordinator), Webmaster (Coordinator)
▷ Event: AP Statistics Summer Institute (Organizer)
▷ Committee/Panel: Computer Support (Member)

• TEACHING ASSIGNMENTS DURING 2008

Summer
▷ STAT 685. — Directed Studies (total enrollment: 1)

Fall
▷ STAT 604. — Special Problems in Statistical Computations and Analysis (total enrollment: 30)
▷ STAT 685. — Directed Studies (total enrollment: 2)

• PRESENTATIONS DURING 2008

▷ “Stefan Ward, Megan Babkes Stellino, Charles Farnsworth, and Jamis Perrett. Youth With Hearing or Visual Impairments Attraction to Physical Activity,” AAHPERD Annual Meeting, Ft. Worth, TX, April, 2008. (Contributed)


▷ “Using Camtasia Studio Software to Record and Deliver Tutorials in Mathematics and Statistics,” AP Statistics Summer Institute, Texas A&M University, College Station, TX, July, 2008. (Contributed)


▷ “Steve Hoff, Jamis Perrett. Determining Minimum Sample Sizes to Achieve Central Limit Theorem Closeness when Sampling from Various Populations,” Joint Statistical Meetings, Denver, CO, August, 2008. (Contributed)


Hired 06/01/2008.
• SERVICE DURING 2008
  National

• TEACHING ASSIGNMENTS DURING 2008
  Fall
  ▶ STAT 414. — *Mathematical Statistics I* (total enrollment: 35)

• PRESENTATIONS DURING 2008
  ▶ “Sparse and Parsimonious Models for the Covariance Matrix of Correlated Data,” Texas A&M University, College Station, TX, February, 2008. (Invited)

• PUBLICATIONS DURING 2008

*Hired 08/01/2008.*
HUIYAN SANG
ASSISTANT PROFESSOR (979) 845-3156
STAT-Bayesian Statistics huiyan@stat.tamu.edu

• SERVICE DURING 2008
  National
  ▶ Editorial/Board: JABES, Journal of Climate, Applications and Applied Mathematics
  (Referee: Journals)

• TEACHING ASSIGNMENTS DURING 2008
  Fall
  ▶ STAT 211. — Principles of Statistics I (total enrollment: 71)

• PRESENTATIONS DURING 2008
  ▶ “Continuous Spatial Process for Extreme Value,” Joint Statistical Meetings, Denver, CO,
    2008.( Invited)
  ▶ “Extreme Value Climate Study,” SAMSI Undergraduate Workshop, RTP, NC, 2008.( Contributed)
  ▶ “Interpreting Self Organizing Maps Through Space Time Data Model,” Isaac Newton
    Institute Workshop on Computational Biology, Cambridge, United Kingdom, 2008.( Invited)
  ▶ “Bayesian Analysis of Microscale Spatial Variations,” ISI, Storrs, CT, May, 2008.( Invited)

• PUBLICATIONS DURING 2008
  ▶ Finley, A.O.; Sang, H.; Banerjee, S.; Gelfand A.E. (2008) Improving the Performance of
    Predictive Process Modeling for Large Datasets. Computational Statistics and Data
    Analysis Banerjee, S.
    Spatial Data Sets. JRSS-B.

Hired 08/01/2008.
• **SERVICE DURING 2008**

**University**
- Committee/Panel: Information Policy Committee (Member), IT Advisory Committee (Member)

**College**
- Committee/Panel: Systems Administrators Committee (Chair)
• ADDITIONAL UNIVERSITY TITLES HELD DURING 2008
  ▶ Department Head, Statistics, [2005]

• AWARDS DURING 2008
  National
  ▶ Statistics in Chemistry, American Statistical Association

• SERVICE DURING 2008
  National
  ▶ Committee/Panel: American Statistical Association, Program Committee Section on Nonparametric Statistics (Chair), Southern Regional Council on Statistics (Member)
  University
  ▶ Committee/Panel: Academic Master Plan Steering Committee (Member), International Faculty and Scholar Network (President), IPECC College Representative (Member), Teaching/Learning Roadmap Committee (Member)
  College
  ▶ Committee/Panel: Executive Committee (Member)
  Department
  ▶ Committee/Panel: Head Council (Member), State Employee Charitable Campaign (Representative)

• TEACHING ASSIGNMENTS DURING 2008
  Spring
  ▶ STAT 608. — Least Squares and Regression Analysis (total enrollment: 21)
  ▶ STAT 691. — Research (total enrollment: 2)
  Summer
  ▶ STAT 685. — Directed Studies (total enrollment: 1)
  ▶ STAT 691. — Research (total enrollment: 3)
  Fall
  ▶ STAT 685. — Directed Studies (total enrollment: 2)
  ▶ STAT 691. — Research (total enrollment: 4)

• RESEARCH PROJECTS DURING 2008
  Federal
  ▶ Developing Prevalence Measures of Elder Abuse in Residential Long-Term Care Settings, Department of Health and Human Services
▷ Gene Expression Analysis of Coding and Non-Coding RNAs in Colon Cancer Prevention, *Department of Health and Human Services*

▷ Development of a Controlled Hemorrhage Model in Mature Male Miniature Pigs for Multi-Center Application and Trial of Novel Field-Expedient Treatment, *National Institutes of Health*

**PRESENTATIONS DURING 2008**


▷ University of Kentucky, Lexington, KY, September, 2008. (Invited)

▷ “The Importance of Valid Models in Data Mining,” M2008 Data Mining Conference, Las Vegas, NV, October, 2008. (Invited)

**PUBLICATIONS DURING 2008**


• ADDITIONAL UNIVERSITY TITLES HELD DURING 2008
  ▷ Member, Interdisciplinary Faculty, Toxicology, [2006]

• AWARDS DURING 2008

  International
  ▷ Member, International Statistical Institute

• SERVICE DURING 2008

  National

  College
  ▷ Committee/Panel: Grievance Committee (Vice Chair), Grievance Committee (Elected Member)

  Department
  ▷ Committee/Panel: Examinations Committee (Member), Tenure and Promotion Advisory Committee (Member)

• TEACHING ASSIGNMENTS DURING 2008

  Spring
  ▷ STAT 601. — Statistical Analysis (total enrollment: 40)
  ▷ STAT 616. — Multivariate Analysis (total enrollment: 12)
  ▷ STAT 691. — Research (total enrollment: 1)

  Summer
  ▷ STAT 685 — Directed Studies (total enrollment: 1)
  ▷ STAT 691. — Research (total enrollment: 1)

  Fall
  ▷ STAT 647. — Spatial Statistics (total enrollment: 7)
  ▷ STAT 685 — Directed Studies (total enrollment: 1)
  ▷ STAT 689. — Special Topics in (total enrollment: 7)

• PUBLICATIONS DURING 2008


• SERVICE DURING 2008

National
▷ Event: Biometrics Section for the 2009 Joint Statistical Meeting (Organizer), Dr. Jaya Satagopan in the Epidemiology Section for the 2008 Joint Statistical Meeting (Organizer), Epidemiology Section in the JSM 2008 (Organizer)
▷ Editorial/Board: Introduction to Bayesian Statistics (Reviewed)

Department
▷ Committee/Panel: Qualifying Examination Committee (Member)

• TEACHING ASSIGNMENTS DURING 2008

Fall
▷ STAT 691. — Research (total enrollment: 1)

• PRESENTATIONS DURING 2008


• PUBLICATIONS DURING 2008

F. MICHAEL SPEED

PROFESSOR STAT-Computational Statistics
(979) 845-3182 mspeed@stat.tamu.edu

• ADDITIONAL UNIVERSITY TITLES HELD DURING 2008
  ▶ Associate Dean for Technology Mediated Instruction and Distance Education, Technology Office, College of Science, [2006]

• AWARDS DURING 2008
  College
  ▶ Member, Academy of Distinguished Former Students

• SERVICE DURING 2008
  University
  ▶ Committee/Panel: Advisor on Centra (Member)
  College
  ▶ Committee/Panel: Executive Committee (Member), Graduate Instruction Committee (Member), Information Technology Committee (Member), Qatar Advisory Committee (Member), Technology-Mediated Instruction Committee (Chair)
  Department
  ▶ Service Position: On-Line Learning (Director)
  ▶ Committee/Panel: Curriculum Committee (Chair), Various Departmental Committees (Member)

• TEACHING ASSIGNMENTS DURING 2008
  Spring
  ▶ STAT 685. — Directed Studies (total enrollment: 1)
  Summer
  ▶ STAT 685. — Directed Studies (total enrollment: 3)
  Fall
  ▶ STAT 636. — Methods in Multivariate Analysis (total enrollment: 49)
  ▶ STAT 685. — Directed Studies (total enrollment: 2)

• PRESENTATIONS DURING 2008
  ▶ M2008 Data Mining, 2008.( Invited)
  ▶ SEASUG Data Mining, 2008.( Invited)

• PUBLICATIONS DURING 2008
• ADDITIONAL UNIVERSITY TITLES HELD DURING 2008
  ▶ Senior Research Scientist, Texas Transportation Institute, [2007]

• AWARDS DURING 2008
  National
  ▶ Statistics in Chemistry, American Statistical Association

• SERVICE DURING 2008
  National
  ▶ Editorial/Board: Chemometrics and Intelligent Laboratory Systems (Co-Editor), Journal of Environmetrics (Member), Journal of Proteomics (Member)
  ▶ Committee/Panel: National Institute of Statistical Sciences (Board of Trustees), Publication Ethics (Member), The Institute for Studies in Science and the Law (Board of Directors)

• PRESENTATIONS DURING 2008
  ▶ Gap Bootstrap, with S. Lahiri to The International Environmetrics Conference, June, 2008. (Invited)
  ▶ “Transportation Center Statistical issues in Hypotheses testing,” University of Nebraska, August, 2008. (Invited)
  ▶ “Statistical Issues in Forensic Science,” Texas A&M University, College Station, TX, November, 2008. (Invited)

• PUBLICATIONS DURING 2008
• SERVICE DURING 2008

National

University
▷ Committee/Panel: Library Committee (Member)

College
▷ Committee/Panel: International Programs Committee (Member)

• TEACHING ASSIGNMENTS DURING 2008

Spring
▷ STAT 651 — *Statistics in Research I* (total enrollment: 55)

Fall
▷ STAT 651 — *Statistics in Research I* (total enrollment: 73)
▷ STAT 673 — *Time Series Analysis I* (total enrollment: 14)

• RESEARCH PROJECTS DURING 2008

Federal
▷ Beyond Stationarity: Statistical Inference for Nonstationary Processes, *National Science Foundation*

• PRESENTATIONS DURING 2008

▷ Rice University, Houston, TX, March, 2008. (Invited)
▷ Brown University, Providence, RI, April, 2008. (Invited)
▷ Oberwolfach, August, 2008. (Invited)

• PUBLICATIONS DURING 2008

• ADDITIONAL UNIVERSITY TITLES HELD DURING 2008
  ▷ Undergraduate Advisor, Statistics Undergraduate Advising Office, Statistics, [2006]

• SERVICE DURING 2008
  University
  ▷ Committee/Panel: Faculty Senate (Faculty Senator - 04)

  College
  ▷ Committee/Panel: Undergraduate Curriculum Committee (Member)

  Department
  ▷ Service Position: STAT 302 (Coordinator)

• TEACHING ASSIGNMENTS DURING 2008
  Fall
  ▷ STAT 212. — Principles of Statistics II (total enrollment: 75)
  ▷ STAT 302. — Statistical Methods (total enrollment: 150)

• PRESENTATIONS DURING 2008
  ▷ Danish Technical University’s Fisheries Institute, 2008. (Invited)
• ADDITIONAL UNIVERSITY TITLES HELD DURING 2008
  ▶ Member, Interdisciplinary Faculty, Bioinformatics, [2006]

• SERVICE DURING 2008

  International
  ▶ Committee/Panel: ISBA Savage Fund Trust Committee (Member)

  National
  ▶ Event: Invited Session Bayesian Bioinformatics, Joint Statistical Meetings, Salt Lake City, UT (Organizer)
  ▶ Editorial/Board: National Science Foundation Statistics and Probability (Panelist), *Bayesian Analysis* (Associate Editor), *Chemometrics and Intelligent Laboratory Systems* (Associate Editor), *Journal of American Statistical Association*, *Bioinformatics*, *Biometrika*, *Bayesian Analysis* (Referee: Journals), *Journal of the American Statistical Association* (Associate Editor), *National Institutes of Health Study Sessions* (Reviewer), *Technometrics* (Associate Editor)
  ▶ Committee/Panel: Travel Award Committee, IMS (Member)

  Department
  ▶ Committee/Panel: Faculty Recruiting Committee (Member), Methods Qualifying Exam Committee (Member)

• TEACHING ASSIGNMENTS DURING 2008

  Spring
  ▶ STAT 691. — Research (total enrollment: 1)

• RESEARCH PROJECTS DURING 2008

  Federal
  ▶ Adaptive Methodology for Functional Biomedical Data, *National Institutes of Health*
  ▶ Bayesian Methods for Genomics with Variable Selection, *National Institutes of Health*
  ▶ Wavelet-Based Statistical Modeling and Applications, *National Science Foundation*

• PUBLICATIONS DURING 2008


Resigned 08/31/2008.

No report received from faculty member.
• ADDITIONAL UNIVERSITY TITLES HELD DURING 2008
  ▷ Member, Interdisciplinary Faculty, Bioinformatics, [2006]

• SERVICE DURING 2008

  National
  ▷ Professional Affiliation: International Chinese Statistical Association (Board of Directors)
  ▷ Editorial/Board: Grant Proposals, External Tenure and Promotion Cases (Reviewed),
    Journal of Nonparametric Statistics (Executive Editor), Various Articles for Journals
    (Referee: Journals)

  State
  ▷ Editorial/Board: InterStat (Editor)

  Department
  ▷ Committee/Panel: Awards Committee (Chair), College of Science Strategic Planning
    Committee (Member), Graduate Student Qualifying Exams Committee (Member), Gradu-
    ate Student Recruiting (Member), Parzen Prize Committee (Chair), Promotion and
    Tenure Committee (Member), Theory Qualifier for Qualifying Exams Committee (Chair)

• TEACHING ASSIGNMENTS DURING 2008

  Spring
  ▷ STAT 212. — Principles of Statistics II (total enrollment: 74)
  ▷ STAT 652. — Statistics in Research II (total enrollment: 38)
  ▷ STAT 685. — Directed Studies (total enrollment: 2)

  Summer
  ▷ STAT 685. — Directed Studies (total enrollment: 1)
  ▷ STAT 691. — Research (total enrollment: 1)

  Fall
  ▷ STAT 607. — Sampling (total enrollment: 10)
  ▷ STAT 610. — Theory of Statistics I (total enrollment: 13)
  ▷ STAT 685. — Directed Studies (total enrollment: 2)
  ▷ STAT 691. — Research (total enrollment: 2)

• RESEARCH PROJECTS DURING 2008

  Federal
  ▷ Health Maintenance Consortium Resource Center Grant, National Institutes of Health
The Program for Rural and Minority Health Disparity Research, *National Institutes of Health*

Private

- Maintaining Musculoskeletal Health in the Lunar Environment, *Baylor College of Medicine*

• PRESENTATIONS DURING 2008

- Brigham Young University, 2008. (Invited)
- Joint Statistical Meetings, Denver, CO, 2008. (Invited)
- Kansas State University, Manhattan, KS, 2008. (Invited)
- Shanghai University of Finance and Economics, 2008. (Invited)
- University of California, Santa Barbara, CA, 2008. (Invited)

• PUBLICATIONS DURING 2008

• ADDITIONAL UNIVERSITY TITLES HELD DURING 2008
  ▶ Member, Interdisciplinary Faculty, Bioinformatics, [2006]
  ▶ Member, Interdisciplinary Faculty, Toxicology, [2006]

• SERVICE DURING 2008
  International
  ▶ Committee/Panel: International Biometrics Society Editorial Committee (Member)
  National
  ▶ Editorial/Board: National Institutes of Health BMRD Study Section (Member), NIH Special Study Section on Assessment of Physical Activity and Nutritional Health Effects (Member), Biometrics (Editor)
  ▶ Committee/Panel: Biometrics Editor Selection Committee (Member)

• TEACHING ASSIGNMENTS DURING 2008
  Spring
  ▶ STAT 691. — Research (total enrollment: 1)
  Summer
  ▶ STAT 691. — Research (total enrollment: 1)
  Fall
  ▶ STAT 685. — Directed Studies (total enrollment: 1)
  ▶ STAT 691. — Research (total enrollment: 1)

• RESEARCH PROJECTS DURING 2008
  Federal
  ▶ Measurement Error, Missing Data, and Semiparametrics, National Cancer Institute
  ▶ (REN) Measurement Error, Missing Data, and Semiparametrics, National Institutes of Health
  ▶ Melanoma Detection by Oblique-Incidence Optical Spectroscopy, National Institutes of Health
  ▶ Non-Invasive Optical Detection of Skin Cancer, National Institutes of Health
  Industrial
  ▶ Non-Invasive Detection of Intestinal Gene Expression Profiles Using Exfoliated Cells: Development of Robust Classifiers for Nutritional, Mead Johnson & Company

• PRESENTATIONS DURING 2008
  ▶ Department of Biostatistics, Columbia University, New York, NY, 2008. (Invited)
Department of Biostatistics, University of California, San Francisco, CA, 2008.( Invited)
Department of Statistics, Ohio State University, Columbus, OH, 2008.( Invited)
Department of Statistics, Penn State University, University Park, PA, 2008.( Invited)
Department of Statistics, University of Minnesota, MN, 2008.( Invited)
IMS-China International Conference on Statistics and Probability, Hongzhou, China, 2008.( Invited)
Joint meeting of Societe francaise de Statistique and Statistical Society of Canada, Ottawa, CA, 2008.( Invited)
Manchester University, United Kingdom, 2008.( Invited)
University of Geneva, Switzerland, 2008.( Invited)
University of Newcastle, United Kingdom, 2008.( Invited)
THOMAS E. WEHRLY

PROFESSOR (979) 845-1359
STAT-Stochastic Models twehrly@stat.tamu.edu

- SERVICE DURING 2008

National
  ▶ Editorial/Board: National Science Foundation (Review: Proposals), Statistical Journals (Referee: Journals)

University
  ▶ Committee/Panel: Kappa Chapter of Phi Beta Kappa (Treasurer), University Athletic Council (Chair)

College
  ▶ Committee/Panel: College Quality Enhancement Plan Council (Member), Research Advisory Committee (Member), Undergraduate Curriculum Committee (Member)

Department
  ▶ Committee/Panel: Examination Committee - Theory Qualifying (Member), Faculty Recruiting Committee (Chair), Graduate Program Committee (Member), Graduate Service Committee (Member)

- TEACHING ASSIGNMENTS DURING 2008

Spring
  ▶ STAT 302.(H) — Statistical Methods (total enrollment: 23)
  ▶ STAT 659. — Applied Categorical Data Analysis (total enrollment: 48)
  ▶ STAT 691. — Research (total enrollment: 1)

Summer
  ▶ STAT 630. — Overview of Mathematical Statistics (total enrollment: 26)
  ▶ STAT 659. — Applied Categorical Data Analysis (total enrollment: 18)
  ▶ STAT 685. — Directed Studies (total enrollment: 1)
  ▶ STAT 691. — Research (total enrollment: 3)

Fall
  ▶ STAT 302. — Statistical Methods (total enrollment: 29)
  ▶ STAT 630. — Overview of Mathematical Statistics (total enrollment: 62)
  ▶ STAT 691. — Research (total enrollment: 1)

- RESEARCH PROJECTS DURING 2008

Federal
  ▶ UBM Integrated Undergraduate Research Experiences in Biological and Mathematical Sciences, National Science Foundation

SEC. 6.1 PROFESSIONAL ACTIVITIES 855
WEBSTER WEST

ASSOCIATE PROFESSOR  (979) 845-3178
STAT-Computational, Graphical Statistics  west@stat.tamu.edu

• SERVICE DURING 2008

National
  ▶ Committee/Panel: ENAR Technology Oversight Committee (Member)

University
  ▶ Committee/Panel: Homeland Security Interim Steering Committee (Member)

Department
  ▶ Committee/Panel: Awards Committee (Member), Curriculum Committee (Member), Promotion and Tenure Committee (Member)

• TEACHING ASSIGNMENTS DURING 2008

Spring
  ▶ STAT 691 — Research (total enrollment: 1)

Fall
  ▶ STAT 691 — Research (total enrollment: 44)

• RESEARCH PROJECTS DURING 2008

Federal
  ▶ Low Dose Risk Bounds via Simultaneous Confidence Bands, National Institutes of Health

Other
  ▶ Model Selection and Multiplicity Adjustment for Benchmark Analysis in Quantitative Risk Assessment, University of Arizona

• PRESENTATIONS DURING 2008

  ▶ “Maximum Kernel Likelihood Estimation,” Rice University, Houston, TX, January, 2008. (Invited)

• PUBLICATIONS DURING 2008


• SERVICE DURING 2008
  University
  ▶ Committee/Panel: Faculty Senate (Faculty Senator - 04)

• TEACHING ASSIGNMENTS DURING 2008
  Spring
  ▶ STAT 302. — Statistical Methods (total enrollment: 246)
  Fall
  ▶ STAT 302. — Statistical Methods (total enrollment: 233)
• TEACHING ASSIGNMENTS DURING 2008

Fall
▷ STAT 211. — Principles of Statistics I (total enrollment: 150)

• PRESENTATIONS DURING 2008

▷ Department of Statistics, Texas A&M University, College Station, TX, January, 2008. (Invited)
▷ Department of Statistics, Bioinformatics Seminar, Texas A&M University, College Station, TX, April, 2008. (Invited)

• PUBLICATIONS DURING 2008


Hired 08/01/2008.
7. Research Activity, 2008

This section contains information on all funded research activity for the calendar year 2008. Information was initially reported by faculty and verified whenever possible through the granting agency. Because of calculations and rounding there is a small margin of error.

Information reported by faculty:

- Title
- Granting Agency
- PIs, Co-PIs, and co-workers (internal/external)
- Total Funding
- Indirect Costs
- Start & End Dates

Calendar year calculations:

- Total - Indirect = Direct
- # Days Total Grant = End Date - Start Date
- Daily Grant Award = Total Funding Reported / # Days Total Grant
- Grant Award for 2008 = # Days 2008 × Daily Grant Award
## 7.1 Summary of Research Support, 2008

<table>
<thead>
<tr>
<th>Grantee,Multisite</th>
<th>Federal Agencies</th>
<th>Department of Health and Human Services</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Battelle - Pacific Northwest National Laboratory</strong></td>
<td>Dabney, A.R.</td>
<td></td>
</tr>
</tbody>
</table>
Quantifying Protein Abundance from Mass Spectrometry Experiments Using the AMT Tag Pipeline  
Start: 11/1/2008  
End: 9/30/2010  
Direct: 30,086  
Indirect: 0  
Total: 30,086  
**Subtotal:** Battelle - Pacific Northwest National Laboratory  
Direct: 30,086  
Indirect: 0  
Total: 30,086  
  |
| **Department of Health and Human Services** | Dabney, A.R. |  
Mechanisms of Eicosapentanoic Acid and Estrogen Effects in Colon Cancer  
Start: 12/1/2007  
End: 11/30/2012  
Direct: 56,219  
Indirect: 25,580  
Total: 81,799  
  |
|  | Fan, R. |  
Genetic Basis for Exercise Training Responses  
Start: 4/1/2008  
End: 3/31/2012  
Direct: 115,878  
Indirect: 53,883  
Total: 169,761  
  |
|  | Sheather, S.J. |  
Developing Prevalence Measures of Elder Abuse in Residential Long-Term Care Settings  
Start: 9/15/2007  
End: 6/30/2009  
Direct: 51,724  
Indirect: 8,570  
Total: 60,294  
  |
|  | Sheather, S.J. |  
Gene Expression Analysis of Coding and Non-Coding RNAs in Colon Cancer Prevention  
Start: 9/18/2007  
End: 7/31/2011  
Direct: 63,763  
Indirect: 27,335  
Total: 91,098  
  |
|  | Mallick, B.K. |  
Support of Stockpile Stewardship Program, (with: J. Guermond, B. Mallick, B. Popov)  
Start: 9/1/2008  
End: 6/30/2011  
Direct: 34,422  
Indirect: 10  
Total: 34,432  
  |
| **Lawrence Livermore National Laboratory** | Mallick, B.K. |  
Support of Stockpile Stewardship Program, (with: J. Guermond, B. Mallick, B. Popov)  
Start: 9/1/2008  
End: 6/30/2011  
Direct: 34,422  
Indirect: 10  
Total: 34,432  
  |
| **National Aeronautics and Space Administration** | Carroll, R.J. |  
Nutritional Countermeasures to Radiation Exposure  
Start: 10/1/2007  
End: 9/30/2008  
Direct: 176,000  
Indirect: 0  
Total: 176,000  
  |
| **National Cancer Institute** | Ma, Y. |  
Measurement Error, Missing Data, and Semiparametrics, (with: Y. Ma, N. Wang)  
Start: 4/1/2002  
End: 3/31/2008  
Direct: 6,965  
Indirect: 3,699  
Total: 10,664  
  |
|  | Wang, N. |  
Measurement Error, Missing Data, and Semiparametrics, (with: Y. Ma, N. Wang)  
Start: 4/1/2002  
End: 3/31/2008  
Direct: 6,965  
Indirect: 3,699  
Total: 10,664  
  |

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2008 Statistics annual report
<table>
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<tr>
<th>Grantee</th>
<th>Title</th>
<th>Start</th>
<th>End</th>
<th>Direct</th>
<th>Indirect</th>
<th>Total</th>
</tr>
</thead>
<tbody>
<tr>
<td>Carroll, R.J.</td>
<td>(REN) Training Program in Biostatistics, Bioinformatics, and Nutrition</td>
<td>7/1/2007</td>
<td>6/30/2011</td>
<td>575,000</td>
<td>50,000</td>
<td>625,000</td>
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<tr>
<td>Sheather, S.J.</td>
<td>Development of a Controlled Hemorrhage Model in Mature Male Miniature Pigs for Multi-Center Application and Trial of Novel Field-Expedient Treatment</td>
<td>9/1/2007</td>
<td>8/31/2008</td>
<td>355,706</td>
<td>0</td>
<td>355,706</td>
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<tr>
<td>Vannucci, M.</td>
<td>Adaptive Methodology for Functional Biomedical Data</td>
<td>4/1/2004</td>
<td>3/31/2008</td>
<td>6,980</td>
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<td>Wang, N.</td>
<td>Melanoma Detection by Oblique-Incidence Optical Spectroscopy</td>
<td>4/1/2004</td>
<td>3/31/2009</td>
<td>344,979</td>
<td>97,000</td>
<td>441,979</td>
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<td>Wang, N.</td>
<td>Non-Invasive Optical Detection of Skin Cancer</td>
<td>4/1/2004</td>
<td>3/31/2009</td>
<td>360,000</td>
<td>0</td>
<td>360,000</td>
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<td>Wang, S.</td>
<td>The Program for Rural and Minority Health Disparity Research</td>
<td>10/1/2007</td>
<td>5/31/2012</td>
<td>642,606</td>
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<td>642,606</td>
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<td>West, W.</td>
<td>Low Dose Risk Bounds via Simultaneous Confidence Bands</td>
<td>2/27/2007</td>
<td>6/30/2008</td>
<td>12,030</td>
<td>5,474</td>
<td>17,503</td>
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**Subtotal:** National Institutes of Health

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<td>2,759,612</td>
<td>301,463</td>
<td>3,061,074</td>
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**National Science Foundation**

SEC. 7. RESEARCH ACTIVITY 863
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<tr>
<th>Grantee</th>
<th>Title</th>
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<th>End</th>
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<th>Indirect</th>
<th>Total</th>
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<td></td>
<td>Efficiency, Nonstationarity/Noninvertibility and Goodness of Fit</td>
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<tr>
<td></td>
<td>Skewed Distributions and Application to Spatial Selection Models,</td>
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<tr>
<td></td>
<td>(with: M. Genton, B. Mallick)</td>
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<tr>
<td></td>
<td>Climate Science, (with: M. Genton, M. Jun, H. Jung, B. Mallick)</td>
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<tr>
<td>Hart, J.D.</td>
<td>Cluster-Based Bootstrapping in Multiple Hypothesis Testing</td>
<td>6/1/2006</td>
<td>5/31/2010</td>
<td>17,055</td>
<td>7,195</td>
<td>24,250</td>
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<tr>
<td>Huang, J.Z.</td>
<td>Collaborative Research: Statistical Learning and Object Oriented</td>
<td>6/1/2006</td>
<td>5/31/2009</td>
<td>23,236</td>
<td>9,819</td>
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<td>Data Analysis</td>
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<td>Climate Science, (with: M. Genton, M. Jun, H. Jung, B. Mallick)</td>
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<td>Spatial Processes</td>
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<td>Order Accuracy</td>
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<td>Skewed Distributions and Application to Spatial Selection Models,</td>
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<td></td>
<td>(with: M. Genton, B. Mallick)</td>
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<td>Climate Science, (with: M. Genton, M. Jun, H. Jung, B. Mallick)</td>
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<td>Total</td>
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<tr>
<td>Newton, H.</td>
<td>Center for the Application of Information Technology in the Teaching and Learning of Science, (with: R. Ewing, H. Newton, J. Schielack)</td>
<td>9/1/2000</td>
<td>8/31/2008</td>
<td>166,381</td>
<td>0</td>
<td>166,381</td>
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<tr>
<td>Newton, H.</td>
<td>Noyce Scholarship (Supplement to ITS Center Grant), (with: R. Ewing, H. Newton, J. Schielack)</td>
<td>7/31/2002</td>
<td>8/31/2008</td>
<td>10,931</td>
<td>0</td>
<td>10,931</td>
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<tr>
<td>Vannucci, M.</td>
<td>Wavelet-Based Statistical Modeling and Applications</td>
<td>9/1/2006</td>
<td>8/31/2009</td>
<td>40,000</td>
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* Subtotal: National Science Foundation 768,827 170,002 938,829

* Pacific Northwest National Laboratory

Dabney, A.R.      | Statistical Methods for Protein Identification and Quantitation in Protein Mass Spectrometry | 9/1/2008 | 8/31/2010 | 58,093  | 0        | 58,093  |

* Subtotal: Pacific Northwest National Laboratory 58,093 0 58,093

* Subtotal: Federal Agencies 4,128,554 594,242 4,722,796

Industrial/Corporate Agencies

* Mead Johnson & Company


* Subtotal: Mead Johnson & Company 27,991 5,598 33,589

* Subtotal: Industrial/Corporate Agencies 27,991 5,598 33,589

SEC. 7. RESEARCH ACTIVITY 865
Grantee Title Start End Direct Indirect Total

**Other Government**

- **King Abdullah University of Science and Technology**
  Calvin, J.A. Institute for Applied Mathematics and Computational Science (IAMCS) at Texas A&M University at The King Abdullah University of Science and Technology Global Research Partnership 6/1/2008 5/31/2013 2,230,999 103,247 2,334,247
  - Subsubtotal: King Abdullah University of Science and Technology 2,230,999 103,247 2,334,247

- **University of Alabama-Birmingham**
  Carroll, R.J. Genome-Wide Structured Association Testing and Regional Admixture Mapping 7/1/2007 8/31/2011 40,951 1,494 42,445
  - Subsubtotal: University of Alabama-Birmingham 40,951 1,494 42,445

- **University of Arizona**
  West, W. Model Selection and Multiplicity Adjustment for Benchmark Analysis in Quantitative Risk Assessment 9/1/2008 8/31/2009 18,637 7,740 26,376
  - Subsubtotal: University of Arizona 18,637 7,740 26,376
  * Subtotal: Other Government 2,290,588 112,481 2,403,068

**Private/Non-Profit Agencies**

- **American Institute for Cancer Research**
  Dabney, A.R. Ability of n-3 Fatty Acids to Influence Colon Tumor Formation by Modulating Estrogen Action 1/1/2008 12/31/2009 27,500 0 27,500
  - Subsubtotal: American Institute for Cancer Research 27,500 0 27,500

- **Baylor College of Medicine**
  - Subsubtotal: Baylor College of Medicine 44,049 18,867 62,916

- **Robert Wood Johnson Foundation**
<table>
<thead>
<tr>
<th>Grantee</th>
<th>Title</th>
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<td>Statewide Evaluation of Childhood Obesity Prevention in Texas: Texas Safe Routes to School and Increased Healthy Food Access for WIC Clients</td>
<td>7/15/2008</td>
<td>7/14/2013</td>
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## 7.2 Summary of Individual Support, 2008

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868 2008 Statistics annual report
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**Subtotal Dahl, D.B.**  
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**Subtotal Fan, R.**  
124,674  57,416  182,090

**Subtotal Genton, M.G.**  
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| Wang, S. |
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| National Institutes of Health | Health Maintenance Consortium Resource Center Grant | 1/1/2004   | 12/31/2009  | 44,424 | 0        | 44,424  |
| National Institutes of Health | The Program for Rural and Minority Health Disparity Research | 10/1/2007  | 5/31/2012   | 642,606 | 0        | 642,606 |
| Baylor College of Medicine | Maintaining Musculoskeletal Health in the Lunar Environment | 6/1/2008   | 5/31/2012   | 28,282  | 11,693   | 39,974  |
| Robert Wood Johnson Foundation | Statewide Evaluation of Childhood Obesity Prevention in Texas: Texas Safe Routes to School and Increased Healthy Food Access for WIC Clients | 7/15/2008  | 7/14/2013   | 41,331  | 4,971    | 46,301  |

* Subtotal Wang, S. 756,613 16,663 773,306

| Wehrly, T.K. |
|--------------------------|----------------------------------------------------------------------|------------|-------------|--------|----------|---------|
| National Science Foundation | UBM Integrated Undergraduate Research Experiences in Biological and Mathematical Sciences, (with: D. Bell-Pedersen, V. Cassone, R. Honeycutt, T. McKnight, J. Walton, T. Wehrly) | 9/1/2004   | 8/31/2010   | 30,528  | 4,167    | 34,694  |

* Subtotal Wehrly, T.K. 30,528 4,167 34,694

| West, V. |
|--------------------------|----------------------------------------------------------------------|------------|-------------|--------|----------|---------|
| National Institutes of Health | Low Dose Risk Bounds via Simultaneous Confidence Bands | 2/27/2007  | 6/30/2008   | 12,030  | 5,474    | 17,503  |
| University of Arizona | Model Selection and Multiplicity Adjustment for Benchmark Analysis in Quantitative Risk Assessment | 9/1/2008   | 8/31/2009   | 18,637  | 7,740    | 26,376  |

* Subtotal West, V. 30,666 13,213 43,880

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