

Odds & Ends

DEPARTMENT OF

STATISTICS NEWSLETTER

2006

A Message from the Department Head



Dear Alums and Friends,

We are pleased to present a new format for our newsletter. Thanks are due to **Teena Seele**, the editor.

New opportunities have arisen with our massive data research initiative. It has brought in new faculty and allowed us to expand

significantly our program in computational statistics. It is a great complement to the bioinformatics program and the theoretical research in high dimensional data analysis. Please see our Web pages for more details.

Last year our facilities were filled beyond capacity because of the increase in graduate students, faculty, and staff in the department, but things are looking up for the coming year. The department offices and many faculty, staff, and graduate students will move to Haas, the old Computer Science building. (In an earlier incarnation it was the Women's Gym.) The opportunity has come about because most of the Department of Computer Science will move to the new Lawson building. However, there are still lots of us in the Math building. If you stop by to visit, you may run into emeritus faculty **Virgil Anderson**, **Lou Cote**, **David Moore**, **Steve Samuels**, or **Bill**

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PURDUE
UNIVERSITY

Studden. We appreciate their continued presence and wisdom.

Congratulations go to two newly promoted associate professors, **Katy Simonsen** and **Michael Zhu**.

Regards,
Mary Ellen

NEW FACULTY



Assistant Professor (joint appointment in electrical and computer engineering), Fall 2005

Guy Lebanon received his PhD in 2005 from Carnegie Mellon University. His current research interests are analysis of text and visual data, computational statistics, information geometry, machine learning, and modeling of ranked data and permutations.

Professor, Fall 2005

Chuanhai Liu, who received his PhD in 1994 from Harvard University, was a member of Statistics and Data Mining Research at Bell Labs, Murray Hill, New Jersey. His research interests are Bayesian, computational methods for statistical inference, computer languages and environments for data analysis, missing data and multiple imputation, multiple comparisons, and time series.



Assistant Professor (joint appointment in computer science), Fall 2006

Jennifer Neville received her PhD from the University of Massachusetts in summer 2006. Her research interests are in machine learning, statistical relational learning, and data mining. Her work has addressed application domains from bioinformatics and epidemiology to fraud detection and intelligence analysis.

Professor (joint appointment in mathematics department), Fall 2005

Michael Roeckner received his PhD in 1984 from Bielefeld University, Germany. He was a professor at the University of Bonn and Bielefeld University. His research interests are in large deviations, mathematical physics, partial differential equations, particle systems/contact processes, physical science and engineering and statistics (aeronautical engineering, astronomy, civil engineering, climate/environmental science), probability and analysis, and stochastic analysis.



Assistant Professor (joint appointment in computer science), Fall 2006



Olga Vitek received her PhD in 2005 from Purdue University. She spent one year as a post-doctoral fellow in the Aebersold lab at the Institute for Systems Biology in Seattle. Her research interests include statistical and computational methods for experiments in mass spectrometry-based proteomics, structural molecular biology, and systems biology.

Assistant Professor, Fall 2005

Dabao Zhang received his PhD in 2003 from Cornell University. He was an assistant professor of biostatistics and computational biology, University of Rochester Medical Center. His current research interests include Bayesian, bioinformatics and biologically related disciplines (genomics, nutrition, proteomics, statistical genetics), computational methods for statistical inference, data mining, decision theory, genomics, markov chain Monte Carlo, massive data, modeling and model selection, proteomics, statistical genetics, and survival analysis.

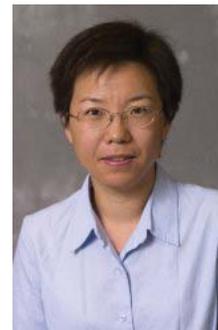


Assistant Professor, Fall 2006

Jian Zhang received his PhD in summer 2006 from Carnegie Mellon University. His research interests include statistical machine learning: theory and algorithms; Bayesian/nonparametric statistics; information retrieval, information extraction, and natural language processing; and data/text mining (classification, clustering, and Novelty Detection).

Assistant Professor, Fall 2005

Min Zhang received her PhD in 2005 from Cornell University. Her current research interests are inference for high dimensional data, model selection, and proteomics; QTL mapping; and physician profiling.



ACCOMPLISHMENTS



In the 2005 elections, **Prof. Mary Ellen Bock**, head of the Department of Statistics, was elected to the Board of Directors and named the 2006 president-elect of the American Statistical Association (ASA).

Bock received the 2006 Violet Haas Award. This Purdue award was created to recognize individuals, departments, or programs that have made a noteworthy effort on behalf of women, whether in hiring, promotion, education, salary, or generally enhancing a positive professional climate. The award was named in honor of Violet Haas, professor of electrical engineering from 1962 until 1986.

The Purdue University Board of Trustees approved the appointment of **Prof. William S. Cleveland** as the Shanti S. Gupta Distinguished Professor of Statistics in February 2005.

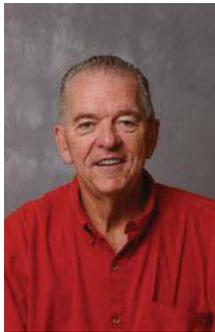
Cleveland, a professor of statistics who has a courtesy appointment in the Department of Computer Science, joined the Purdue faculty in January 2004, after 21 years at Bell Laboratories in Murray Hill, New Jersey. His work in data analysis is internationally known and he has made extensive contributions to analysis of time series, nonparametric regression, statistical modeling of a variety of phenomena, and statistical software development.



Cleveland's distinguished professorship is named for Shanti S. Gupta, founder of Purdue's Department of Statistics in 1968. **David S. Moore** was the first Shanti S. Gupta professor and **Cleveland** is the second.



Prof. Bruce Craig has been named a College of Science University Faculty Scholar as of June 2005. The Faculty Scholar Program recognizes outstanding faculty who are achieving academic distinction at an accelerated rate. The prestigious five-year appointment is limited to 15 faculty in the College of Science. He joins **Prof. R.W. Doerge**, who was named a University Faculty Scholar in 2000.



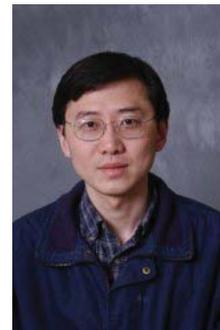
In fall 2004, **Prof. John J. Deely** became the first recipient of the David S. Moore Teaching Award. The award recognizes and rewards outstanding contributions to the quality of our service courses and is given no more often than every two years. The recipient receives funds in an account available for travel and equipment expenditures.

Science alumni voted for their favorite science professor through summer 2005. The College of Science announced the winner in statistics was **Prof. David S. Moore**, Emeritus Shanti S. Gupta Professor.



Prof. Tom Sellke was elected as the new Department of Statistics at-large representative from the College of Science to the University Senate.

Prof. Michael Zhu is a recipient of the Teaching for Tomorrow Award. The award recognizes the demonstrated talents for teaching of assistant professors (or recently promoted associate professors).



Odds & Ends is published annually for alumni and friends of the Purdue Department of Statistics. We welcome comments and suggestions for future newsletters.

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Director of Development:	Bente Fein
Editor:	Teena Seele seele@stat.purdue.edu www.stat.purdue.edu

COMPUTING FACILITIES



Doug Crabill
Manager, Computer Systems

The department has received funds from the College of Science to purchase a Storage Area Network (SAN), which will provide 3.5 terabytes of fast, reliable disk space to our departmental servers. We have also purchased two new 64-bit dual-core, dual-processor machines with 12G of RAM each that will have direct access to the SAN. These machines will run 64-bit Linux, which will potentially allow a program to have access to almost all 12G of RAM. These machines will replace odds and provide a huge leap in general computing power for our department. In addition, we will be deploying two new Windows file servers with direct access to the SAN.

We have installed an OpenBSD bridging firewall to protect our entire departmental network. The firewall is configured to be as unobtrusive as possible, while still shielding us from the large number of attempted network attacks we see every day. Since it covers our entire network, it not only protects our departmentally maintained servers and desktops, but also helps shield any individually maintained laptops placed on our network that may not be adequately protected.

NEW FACES



Rebecca Mitchell is our new secretary IV, receptionist and textbook deputy. She started working for the department in July 2006.



A new administrative assistant position was created to help keep up with the demands of our growing department. **Mary Roe** accepted that position and started with us in March 2005.



Darlene Wayman is our new graduate secretary. She began working in the statistics department in November 2005.

CONGRATULATIONS

Michael (Mik) Black (BS '96; MS '00; PhD '02) and his wife, Mel, had their second son, Kieran John Mexted, on March 22, 2006.

Tadd Colver (MS '03), and his wife, Yi-Chou Carol, had their fourth child, a son, Benjamin Roy, on May 8, 2006.

Zhen Jiang (MS '02; PhD '04) and her husband, Xiong, are the proud parents of a new daughter, Raelene Jiang, born on August 30, 2004.

Sean Moore is the new big brother to Karin Elizabeth, who was born to **Prof. Katy Simonsen** and her husband, Doug Moore, on September 21, 2004.

Dachuang Cao (MS '01; PhD '04) and Hua Shen are the proud parents of their new son, Matthew, born on January 24, 2005.

Current PhD student **Joanne Daggy** and her husband, Christopher, welcomed their new daughter, Ava Grace, to their family on February 14, 2005.

Mircea Gruia Florescu was born on April 30, 2005. He is the new son of Catalina and **Ionut Florescu (MS '01; PhD '04)**. Gruia is the name of a fabled hero from legendary times.

Xander Hughes welcomed his new brother, Vaughn Harrison, on April 28, 2005. Their proud parents are Brett and **Betsy Hughes (MS '04)**.

Kyunga Kim (MS '01; current PhD student), and her husband, Wonil Hwang, are the proud parents of a baby boy, James Sunwoo. He was born on June 21, 2005.

Olga Korosteleva (MS '99; PhD '02) and her husband, Serge Lototsky, have a new son, Paul Serge Lototsky, born in October 2005. This is their second son.

Kenneth Smiley (MS '95) and his wife, **Christine Hixon Smiley (MS '95)**, have a new little boy, Nolan Kenneth Smiley, born on January 26, 2006.

Current PhD student **Hailong (Harry) Wang** and his wife, Dai Shipan, have a new little boy, Dylan (MingFei) Wang, born on March 1, 2006.

Yun Wang (BS '97; MS '00; PhD '05) and her husband, Liming Boui, are the proud parents of a baby girl, Elizabeth Bai, born on November 2, 2005.

Suk Young Yoo (MS '02; current PhD student) and her husband, Min Kyun Kim, are proud of their new daughter, Chloe, born on June 7, 2006. Chloe has a big brother, Luis.

Prof. Tonglin Zhang and his wife, Dan Mu, proudly announce the birth of their daughter, Christina Zhang, born on May 2, 2005.

STUDENT AWARDS

Undergraduate Awards

College of Science Outstanding Science Students



Erin Wilson accepts the 2006 College of Science Outstanding Science Student Award from Dean Jeffrey Vitter.

2005

Jason Anema
Kyle Bauer
Issac Hall
Mohd Hafiz Ab Hamid
Andrew Steenman

2006

James Humphrey
Brian Hunter
Carmen Rhodes
Andrew Steenman
Erin Wilson

Purdue Exam Award for Actuarial Science Majors

2005

Jason Anema
T. J. Cornwell
Christopher Porter
Ching Fong Sin

2006 recipients (pictured left to right):
Prof. R. Penney, Sahara Mohamad, Julie Kiekenapp, Magan Thomson
Not pictured: Dustin Adams, Briana Bethel



Glen E. Baxter Award



Bess Linden Walker (2005)

Joshua Tucker Robinson (2006)

(Left to right) Prof. Mary Ellen Bock,
Joshua Tucker Robinson, and Prof.
Robert Zink

Actuarial Science Scholarship Award

2005

Jennifer L. Miller
Rahul Jyoti
Kevin Query
Amanda Brown

2006

Mohd Hafiz Ab Hamid
TJ Clinch
Laura Helen Delaney
Xiaoli Zhang
Rahul Jyothi
Amanda C. Brown
Kyle A. Bauer
Kristen E. Dyson
Rachel C. Smith



Actuarial Science Scholarship Award recipients (pictured left to right): Amanda Brown, Laura DeLaney, Kristen Dyson, Prof. R. Penney, Sahara Mohammad, Mohd Hafiz Ab Hamid

Second Row: Prof. S. Song, Xiaoli Zhang, Rachel Smith, Kyle Bauer

Back Row: Prof. Mary Ellen Bock, Dean Jeffrey Vitter

V. L. Anderson Scholarship Award

Mohd Hafiz Ab Hamid (2005)

Laura Helen DeLaney (2006)

(Left to right) Dean Vitter, Laura Helen DeLaney, and Bock



Job Search Network

If you have job information that you would like to include on our Web site, please e-mail the job announcement to stat-jobs@stat.purdue.edu.

STUDENT AWARDS

Graduate Student Awards

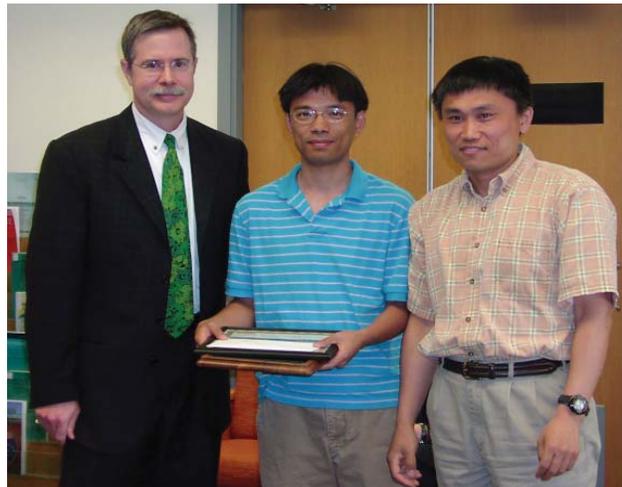
I. W. Burr Award



Dean Jeffrey Vitter and Ionut Florescu (2005)



Dean Vitter and Hongmei Jiang (2005)



Dean Vitter, Chun Han, and Prof. Chong Gu (2006)

Not pictured: Peng Zeng

William J. Studden Award



Dean Vitter and Surya Tokdar (2006)

L. J. Cote M. S. Excellence in Statistics



Dean Jeffrey Vitter and Alexander Lipka
(2005)



Dean Vitter, Patricia Yoshida, and
Prof. L. J. Cote (2006)

STATCOM Community Service Award



Dean Vitter and Nilupa Gunaratna (2005)



Dean Vitter and Alexander Lipka (2006)

Not Pictured: Yun Wang (2005)

Outstanding Classroom Teaching by a Teaching Assistant



Dean Vitter and Martina Muehlbach (2005)



Dean Vitter and Dimitar Vangelov (2006)

OF SPECIAL MENTION



Nilupa Gunaratna (current PhD student) received an invitation to participate in the second Maize HarvestPlus Global Challenge Program meeting in Sete Lagoas, Brazil, August 2005. This is a rare event for a graduate student in statistics.

Tadd Colver (current PhD student) received the Purdue University Graduate Student Award for Outstanding Teaching.



Pang Du (PhD 2006) won the Student Award for the 2006 ICSA Applied Statistics Symposium at the University of Connecticut, Storrs. This award enabled him to attend the symposium.

LingLing An (current PhD student) received a Purdue Graduate Student Government (PGSG) travel grant. She attended the Kansas State University Conference on Applied Statistics in Agriculture in spring 2006.



The Purdue Graduate Student Government (PGSG) Senate elected officers for 2006-2007. **Shannon Knapp**, a PhD student in statistics, was elected as treasurer. Knapp has been involved in PGSG and its forerunner organization, Graduate Student Association, for several years. She has served as chair and a member of the Travel Grant Committee.

We would like to thank **Julie Kiekenapp** (actuarial sciences and statistics), **Brad Raatz** (actuarial sciences and statistics), and **Carmen Rhodes** (actuarial sciences and statistics), three of our new student ambassadors, who will be dedicating their time this coming year. They will share their enthusiasm for the College of Science and Purdue University with future Boilermakers, parents, alumni, and other visitors of our college.

GSO NEWS

By Lingmin Zeng

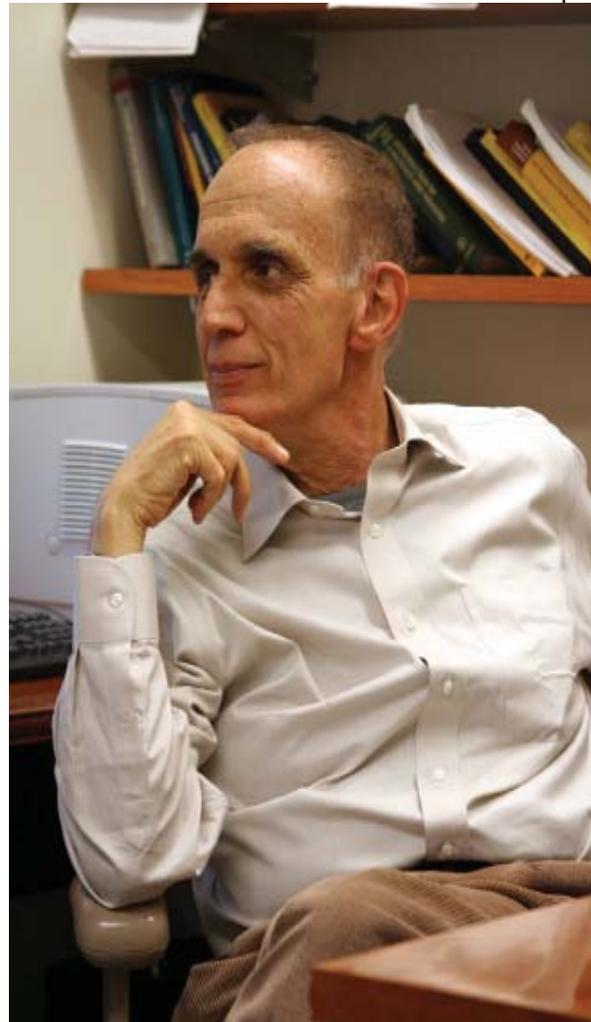


The Graduate Student Organization (GSO) enjoyed another fruitful year of activities including the mentor program, student invited spring speaker, and monthly Monday night seminars.

Every year GSO hosts an invited colloquium speaker. This year, under the supervision of **Prof. Bowei Xi** and **Prof. Mary Ellen Bock**, GSO was honored that **Bradley Efron**, president of the American Statistical Association (ASA) and a member of the National Academy of Sciences, accepted our invitation. He gave a talk on his recent research work on “Correlation and Large-Scale Simultaneous Significance Testing.”

In the fall, we continued our new student mentoring program, which is designed to help the incoming students adjust to the department during their first few weeks. In the program, each of the new students is assigned one senior statistics graduate student as a mentor. The mentor is then available to answer questions, or to provide help with anything the new student may need.

Monthly seminars provide a forum not only for senior level graduate students to practice giving talks but also for student interns to tell their experience about applying statistics into industry. Graduate student **Alexander Lipka** shared his experience with Statistics in the Community (STATCOM) projects and working with the statistical consulting service. **Hailong Wang** described his summer internship experience. **Zhenqiang Lu**, **Pang Du**, and **Lianbo Yu** presented their research work. The seminar series wrapped up with presentations from our three 2005-2006 Vertical Integration of Research and Education in the Mathematical Sciences (VI-GRE) PhD students, **Paul Livermore Auer**, **Ryan Martin**, and **Andrea Rau**. Each student gave a 15-minute talk on a journal article they studied over the course of the semester.

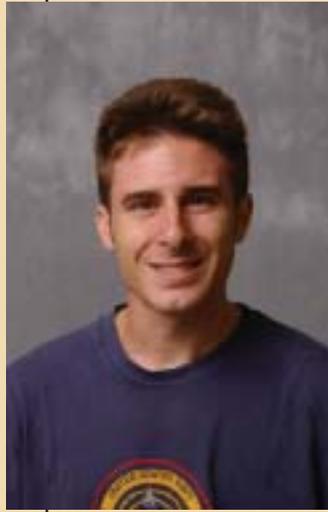


Bradley Efron

The new GSO officers for the 2006-2007 school year are Tilman Achberger, Andrew Lewandowski, Jianying Zhang, and Lingmin Zeng. Paul Kidwell will continue to serve as a Purdue Graduate Student Government (PGSG) senator this year.

STATCOM UPDATE

By Alexander Lipka, Advisor



Statistics in the Community (STATCOM) is a graduate student-run consulting program within the Department of Statistics that provides professional statistical consulting services to nonprofit groups and the local government free

of charge. Students volunteer their time to help community clients address specific problems and needs. In return, they are able to apply statistical concepts to solve real problems, while gaining experience in leadership, consulting in teams, and communication of results to the public.

STATCOM grew rapidly over the 2005-2006 academic year and now has 54 members from statistics and related disciplines. Eleven student teams provided advice, designed surveys, and analyzed data for local clients including schools, governments, and community assistance programs. Moreover, the P-12 Outreach program had a very successful year, and has grown to become an integral part of our organization. As a reflection of STATCOM's rapid growth, STATCOM became officially recognized by Purdue University as a student organization in January 2006.

STATCOM continued its relationship with the city of West Lafayette by designing, analyzing, and presenting the results of three surveys for the West Lafayette Engineer's Office. These surveys assessed people's opinions toward the parking facilities offered at the West Lafayette Village.

As a result of this relationship with the city of West Lafayette, STATCOM is now working on a new set of surveys for both the city of West Lafayette and the city of Lafayette.

STATCOM expanded its outreach mission by working on projects outside the Greater Lafayette Area. There was a STATCOM team working with a client in Evansville, Indiana. Another team is currently involved in assisting a charter school in Chicago, Illinois. STATCOM is also encouraging interdisciplinary interaction within Purdue University by inviting graduate students in the English department to provide assistance in editing reports. We are also beginning to outreach to other universities by helping them start organizations similar to STATCOM. Specifically, we are providing support by sending them documents to begin such an organization, and eventually we would like to visit these and other universities for personal consultation. In order to help fund this new area of outreach, we applied for an American Statistical Association (ASA) Strategic Initiatives (SI) Grant in February 2006. This highly competitive grant is awarded to fund projects that are concurrent with the strategic objectives of the ASA. We are proud to announce that STATCOM was awarded this grant, and it will help us tremendously as we continue to grow during the 2006-2007 academic year.

The accommodation of STATCOM's rapid growth was successful in part because of the effort and devotion of its officers. In order to help assure that this trend may continue in the future, we are seeking funding for both the STATCOM director and the P-12 Outreach director. Also, new officer positions were created to support STATCOM's

growth. Two of these new officers will travel to other universities and assist them in establishing a STATCOM of their own. Two other officers will spearhead a documentation initiative, with the ultimate goal of bringing up STATCOM to ISO 9000 standards.

Professional activities are a fundamental part of STATCOM. **Nilupa Gunaratna**, STATCOM advisor, wrote an article about STATCOM that was featured on the cover of the February 2006 issue of *AmStat News*. It was positively received by the statistical community, and as a result, we received many inquiries from people who wanted to learn more about us. In addition, we presented a poster at an outreach conference at the Ohio State University in Columbus, Ohio, in October. STATCOM discussed how a discipline-specific student-run university organization similar to STATCOM can benefit the community. Finally, in August, we had an informal presentation at this year's Joint Statistical Meetings (JSM) in Seattle, Washington. We also met with Purdue alumni at a dinner held in their honor at JSM.

The support STATCOM receives from the Department of Statistics faculty and staff is crucial to its success. **Regina Becker**, **Teena Seele**, **George McCabe**, and **Bruce**

Craig advise student consultants on all aspects of STATCOM's activities, from seeking new clients to preparing final reports. In the past year, **Ellen Gundlach** has been actively involved as advisor to the P-12 Outreach program, and **Cheryl Crabill** assisted in keeping STATCOM's web site up to date, as well as in publicizing the group's activities. **Mary Ellen Bock** also provided important encouragement and advice, especially as STATCOM expanded in membership and mission. The group looks forward to playing an active role in the department, the statistical community, and the local community in the coming year!



STATCOM members meet with client Euriah Bennett, board member of the Perspectives Charter School in Chicago, Illinois. Pictured left to right: Shradha Mehta, Alexander Lipka, Euriah Bennett, Adam Reeger, and Andreana Robertson.

STATCOM P-12 OUTREACH

By Gayla Olbricht, Director

2005



The STATCOM P-12 Outreach Program is an effort to increase interest and achievement in statistics at all pre-college levels in Indiana. The program is run by Statistics in the Community (STATCOM), a volunteer community outreach organi-

zation directed and staffed by graduate students in the Department of Statistics.

The program was developed during the 2004-2005 academic year by STATCOM members. Since its inception, the group has successfully provided activities for nine events with the help of over 20 graduate student volunteers from the Department of Statistics. The following list includes a summary of the most current events and activities.



Adam Reeger and Jesse Cunningham, statistics graduate students, engage children in a statistics activity at Camp Calcium.

Purdue P-12 Engagement Forum: April 22
A poster titled “STATCOM: K-12 Outreach” by **Adam Reeger** and **Gayla Olbricht** was presented at this forum for educators, legislators, and community leaders across Indiana. The purpose of the forum was to discuss Indiana’s most pressing educational needs, preschool through high school. As part of the meeting, the poster session highlighted engagement activities that are already in place at Purdue.

Camp Calcium: July 18

Classroom activities were presented to adolescents participating in Purdue University’s Camp Calcium. Campers learned about the Secretary Problem, how to compute the chances of winning a certain lottery game, sampling, and estimation.

Indiana State Fair: August 17, Purdue Day
Activities for all ages were provided in the College of Science tent at the Indiana State Fair in Indianapolis, Indiana. Fair-goers had the opportunity to participate in a version of “Let’s Make a Deal,” where they learned about the Monty Hall Problem. They could also try to beat the odds by playing and learning about the chances of winning a lottery game.

Purdue Homecoming: October 15

A Texas Hold ‘Em exhibit was held in the College of Science tent at Purdue’s Homecoming. Participants had fun playing the game while learning some rules about probability.

2006

MATHCOUNTS: February 11 (regional) and March 11 (state)

Volunteers were provided for this middle-school math competition held at Purdue University. STATCOM volunteers helped with grading tests.



Cheng Zheng, statistics PhD student, demonstrates how to calculate the chances of winning a lottery game to children at the Indiana State Fair in 2005.

Science Olympiad: March 25

Volunteers were provided for this competition held at Purdue University. Students in grades 6-12 competed in science-related events throughout the day. Volunteers assisted with miscellaneous tasks to make the event a success.

Spring Fest 2006: April 8-9

In 2005, the STATCOM P-12 Outreach team made its debut at Spring Fest. The team provided activities at a booth on Memorial Mall to increase interest and involvement in statistics through the use of hands-on activities. The booth was very successful, so the STATCOM P-12 Outreach team participated in this fun event for the second time this past spring. This year, activities included Pie Charts with Smarties, Let's Make a Deal

– the Monty Hall Problem, Deal or No Deal, and a Birth Month Chart. Visitors particularly enjoyed the Deal or No Deal exhibit as they could relate it to the popular new game show! STATCOM volunteers also helped with the data management for the entomology department's famous Cricket Spitting Contest and presented a poster using the 2005 data.

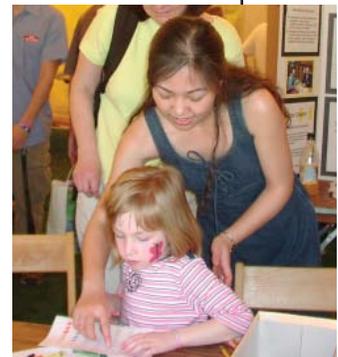
During the development of this program, the P-12 Outreach group has developed a Web site and a brochure which include a mission statement and list of potential activities the group offers. The group has also had the opportunity to work with **Bill Walker**, director for College of Science Outreach, and **Ellen Gundlach**, who became the advisor for the group in the Spring 2005 semester. These two individuals have been very helpful in informing us about opportunities for our activities and providing us with advice about potential activities. Finally, the group would like to thank the numerous student volunteers and other individuals who have helped in making this program a success!

We look forward to the continuing development of the program in the 2006-2007 academic year!

2005-2006 Team Members:

*Jesse Cunningham
Paul Kidwell
Gayla Olbricht
Adam Reeger
Patricia Yoshida*

Lingmin Zeng, statistics PhD student, shows children how to fill out an M&M bar chart at Spring Fest 2005.



OUR GRADUATES

December 2004

Bachelor's in Actuarial Science

Neal Dragsa
James Gould
Bo Li
Jenni Prior

Specialization in Mathematical Statistics

Pete Castelluccio
Shannon Knapp

Bachelor's in Statistics

Alan Thomas Saunders
Carl Svendsen
Shuhui Wang

Master's

Specialization in Applied Statistics

Yang Jiang
Eunjung Lim
Alexander Lipka
Dan Ma

Doctorates

Ionut Florescu (Frederi Viens): *Stochastic Volatility Stock Price - Coefficient Estimation and Option Pricing Using a Recombining Tree and Sharp Estimation of the Almost-Sure Lyapunov Exponent for the Anderson Model in Continuous Space*

Hongmei Jiang (R. W. Doerge): *A Two-Step Procedure for Multiple Pairwise Comparisons in Microarray Experiments*

Chuancai Wang (Bruce Craig): *Motif Discovery via Context Dependent Models*

May 2005

Bachelor's in Actuarial Science

Elissa Ackley
Clayton Cutler
Heather Diehl
Devin Gardner
Laura Hodge
Jennifer Miller
Gregory Moyer
Muhammad Uzair
Kyle Surface
David Weissenborn
Adam Whitehead
Zheng Ming Xu
Carla Yoder
David Young
Xiaolu Zhang



(Left to Right) Elissa Ackley, Neal Dragsa, and Clayton Cutler

May 2005 (Cont.)

Bachelor's in Statistics

Ekarin Boonurai
Chee Chun Kong
Bradley Tank

Specialization in Computational Finance

Shane Cline
Yuping Liu
Benjamin Tyner

Master's

Specialization in Applied Statistics

Johnna Anderson
Melissa Chester
Martin Gonzalo
Elsie Grace
Min-Ah Lee
Sudeshna Paul
Lei Shu
Vladimiro Tobar Solano
Nikita Tuzov
Shih-Yi Wang
Xiaohong Wang
Xian Xiao

Specialization in Mathematical Statistics

Liang Shi

Doctorates

Yali Liu (Bruce Craig): *Incorporating Time-Dependent Covariate in the Cox Proportional Hazards Models: the LVAR Approach*

John Stevens (R.W. Doerge): *Meta-Analytic Approaches for Microarray Data*

Olga Vitek (Bruce Craig): *An Inferential Approach to Protein Backbone Nuclear Magnetic Resonance Assignment*



John Stevens and Prof. R.W. Doerge

August 2005

Bachelor's in Statistics and Actuarial Science

Hsiao-Fan Tang

Master's*Specialization in Applied Statistics*

Jing Cheng

Doctorates

Chun Han (Chong Gu) *Non and Semi-Parametric Regression with Correlated Data*

Bradford Johnson (Thomas M. Sellke): *Some Topics in Probability and Statistics*

Nak-Kyeong Kim (Jun Xie): *Bayesian Models and Markov Chain Monte Carlo Methods for Protein Motifs Using Secondary Characteristics*

Yun Wang (George P. McCabe): *Methods for Missing Values in Dichotomous Response Variables*

Peng Zeng (Michael Zhu): *Fourier Methods for Sufficient Dimension Reduction in Regression*

Wenxuan Zhong (Michael Zhu): *Nonparametric Clustering and Model Selection with Application in Bioinformatics*

December 2005

Bachelor's in Statistics

Emily Louise Claretto
Malik Ghassan Haddadin
Ismadalila Ismail
Jane Loretta Petrovich
Ching Fong Sin
Sudeshna Thomas

Bachelor's in Actuarial Science

Emily Louise Claretto
Malik Ghassan Haddadin
Ismadalila Ismail
Ching Fong Sin
Sudeshna Thomas



Jing Cheng

Master's*Specialization in Applied Statistics*

Andreana Robertson
Mei Wang
Yong Wang

Specialization in Mathematical Statistics

Kai Chen

Doctorates

Lei Liu (Michael Zhu): *On the Estimation of Mixing Distributions: NPMLE and NPMPLE*

May 2006

Bachelor's in Statistics

Mohd Hafiz Ab Hamid
Hsi-Hsuan Bau

Gregory Baum
Tasha Beauchamp
Briana Bethel
Daniel Bryant
Sungwoo Choi
TJ Clinch
Kari Cripe
Michael Feikes
Sean Ganser
Karyn Gerber
Heather Hutton
Ran Jia
Maria Kirilenko
Meng-Ju Lee
Michael Mendel



Prof. R.W. Doerge and Patricia Yoshida

Adam Michalek
Sahara Mohamad
Ryan Moody
Erik Mosley
Krista Noel
Matthew Pasyk
Christopher Porter
Courtney Reifeis
Joshua Satterlee
Robert Smock
Lanaya Stackhouse
Megan Thomson
Natalya Utesheva
Noel Valle
Clinton Walden
Christopher Webb
Erin Wilson
Nur Bazlin Yusof
Xiaoli Zhang

Bachelor's in Actuarial Science

Mohd Hafiz Ab Hamid
Hsi-Hsuan Bau
Gregory Baum
Tasha Beauchamp

Briana Bethel
TJ Clinch
Sean Ganser
Karyn Gerber

Heather Hutton
Ran Jia
Maria Kirilenko
Adam Michalek
Sahara Mohamad
Ryan Moody
Krista Noel
Matthew Pasyk
Christopher Porter
Robert Smock
Megan Thomson
Noel Valle
Clinton Walden
Erin Wilson
Nur Bazlin Yusof
Xiaoli Zhang

Master's

Specialization in Applied Statistics

Tilman Achberger
Timothy Clough
Rebecca Kendall
Adam Reeger
Patricia Yoshida

Specialization in Computational Finance

Salman Chand
Laura Ramos
Hailong Wang
Tao Zhang

Specialization in Mathematical Statistics

Joanne Daggy
Cherie Ochsenfeld

Doctorate

Lianbo Yu (R. W. Doerge): *Statistical Issues in Protein Microarray Analysis*

DISTINGUISHED ALUMNI AWARDS



2005 Distinguished Alumni Woo Chul Kim

(PhD '79, statistics, Purdue University; MS '73, mathematics, Seoul National University; BS, mathematics, '71, Seoul National University).

Woo Chul Kim is a professor at Seoul National University, and is currently a visiting scholar at the University of California, Davis. He joined the faculty at Seoul National University in 1979 as an assistant professor. His research focuses on nonparametric inference and asymptotic theory. In addition to his faculty appointment at Seoul National University, Kim served the College of Natural Sciences as associate dean for student affairs from 1989 to 1991, asso-

ciate dean for academic affairs from 1999 to 2000, and as dean for academic affairs from 2002 to 2004. He served as president of the Korean Statistical Society in 2002-2003, and also holds memberships in the American Statistical Association and the Institute of Mathematical Statistics.

Kim has supervised 38 master of science theses and 11 PhD theses. He has authored six books and published 64 articles in professional journals.

Career Highlights

2002 - dean for academic affairs, Seoul National University

2002 - president, Korean Statistical Society

1999 - associate dean for academic affairs, College of Natural Sciences, Seoul National University

1994 - member, National Academy of Korean Science and Technology

1992 - executive director, Korean Statistical Society

1989 - associate dean for student affairs, Seoul National University

1984 - visiting assistant professor, The Ohio State University

1981 - member, American Statistical Association

1979 - member, Institute of Mathematical Statistics



2006 Distinguished Alumnus

Diane K. Fasel

(MBA '85, Santa Clara University
MS '72, statistics, Purdue University
BS '71, mathematics, Purdue University).

Diane Fasel is co-founder and president of The Bellwood Group, a consulting firm known for effecting change and improving business results. She consults with senior leadership teams and individual executives to:

- align and mobilize intent with action during times of strategic business change,
- create and sustain successful business partnering relationships and high performance leadership teams, and
- enhance quality and service, and reduce costs.

Fasel began her career doing operations research work with U.S. Steel Corporation. With IBM, Amdahl Corporation, and the Institute for Software Engineering, she held leadership positions in marketing, sales, service, product development, and general management. As a consultant she has worked with clients in both the public and private sectors and in a variety of industries, ranging from high-tech and manufacturing to design and construction, health care, and public service.

Fasel served the Purdue College of Science as a member of the Dean's Advisory Council, and she is also an author and speaker. Her book, *Partnering in Action*, offers guidance to businesspeople for building and sustaining successful collaboration across organizational boundaries.

Fasel and her husband, Bill Stockton, have a home in California, and spend most of their time living and traveling on their sailboat.

Career Highlights

1992 - co-founder, The Bellwood Group
1983 - product management and professional services, Amdahl Corporation
1980 - worldwide marketing and sales, Institute of Software Engineering
1973 - sales and systems engineering, IBM
1972 - software development, Electromagnetic Systems Laboratories
1968 - operations research, U.S. Steel Corporation

ALUMNI NEWS

Ming-Hui Chen (MS '91; PhD '93) Department of Statistics, University of Connecticut, was promoted to full professor in 2005. He was also elected a fellow of the American Statistical Association.

Dipak Dey (PhD '80) is professor and head of the Department of Statistics at the University of Connecticut in Storrs, Connecticut. He received a research excellence award in science from the University of Connecticut Alumni Association in October 2005.

Scott Diehl (MS '04) is a junior credit analyst with Merrill Lynch at its headquarters in downtown New York.

Aarti Sriram Ivanic (MS '02) is pursuing her PhD in marketing at the University of Southern California, Los Angeles.

Hongmei Jiang (MS '01; PhD '04) is working for Northwestern University as an assistant professor in statistics.

Brian Lichy (MS '97) is a residual risk manager for Porsche Financial Services.

Michael Lu (PhD '94) is associate director, Biostatistics and Data Management, Edwards Lifesciences LLC in Irvine, California.

Gary C. McDonald (PhD '69) is chair of the MATHCOUNTS Foundation board of directors. He has served as Countdown Round moderator at the national competition since 2002. McDonald is particularly interested in the important role MATHCOUNTS plays in preparing students to enter the workforce. He says, "As tech-

nology impacts more and more aspects of society, strong math skills become a necessity for anyone wishing to advance in a career. MATHCOUNTS provides Mathletes with a strong math foundation and the desire to continue developing these important skills."

MATHCOUNTS is a national math enrichment, coaching, and competition program which heightens student interest in mathematics by making math achievement as challenging, exciting, and prestigious as a school sport. Annually, 6,000 schools from all 50 states, the District of Columbia, U.S. territories, and State Department and Department of Defense schools worldwide select students to participate in the competition series (school, local, state, and national). At all levels, MATHCOUNTS challenges students' math skills, develops their self-confidence, and rewards them for their achievements. For more information on MATHCOUNTS, visit www.mathcounts.org.

Steven McQueen Jr. (BS '93, actuarial science) is director of customer satisfaction at Cooper Crouse Hinds in Syracuse, New York.

Bhramar Mukerjee (MS '99; PhD '01) accepted a tenure-track faculty position at the University of Michigan, Ann Arbor, Department of Biostatistics.

Patricia A. Nahas (MS '67) has been appointed to the 2005 Board of Examiners for the Malcolm Baldrige National Quality Awards. The award is the highest level of national recognition for performance

excellence that a United States organization can receive. As an examiner, she is responsible for reviewing and evaluating applications submitted for the award. Nahas is a consultant in Austin, Texas.

V. Ramaswami (PhD '78) a scientist with AT&T Research Labs. In 2001, parts of the AT&T network experienced a situation in which a large section of customers could not get a dial tone, and that was impacting even emergency services access. The problem was serious as it was estimated that about 90 calls to 911 involving life-threatening emergencies could be at risk. Ramaswami led a group to study this problem using stochastic modeling tools based on a class of probability distributions known as phase type. Their research pinpointed the causes of the congestion, particularly the role of very long calls associated with internet dial-ups, and developed remedies that could be applied in both the short- and long-term.

The work not only saved lives, but also identified opportunities for major cost savings, estimated at \$15 million per year, to AT&T. Several resulting innovations formed the subject of five U.S. patent filings, of which two have been granted. The paper, "Ensuring Emergency Services Access in the Presence of Long Internet Dial-Up Calls" by Ramaswami and co-authors, was a 2004 INFORMS Wagner prize finalist and appeared in the journal *Interfaces* in 2005. Ramaswami credits his thesis work at Purdue for providing the inspiration for obtaining the many non-trivial, counter-intuitive findings that led to an effective solution to the problem. The

paper may be obtained by e-mailing him at vramaswami@att.com.

Chris Rellinger (MS in applied statistics, '95) is director of database marketing at Hollywood Casino in Aurora, Illinois. Chris and his family live in nearby Montgomery.

Jing Shyr (PhD '84) has been named a distinguished alumna of Tsing-Hua University in Taiwan. Shyr is a Science Distinguished Alumna and a member of the Dean's Leadership Council.

Dongchu Sun (PhD '91), professor of statistics, University of Missouri-Columbia, was named Fellow of the Institute of Mathematical Statistics (IMS). Sun received the award for pioneering research in Bayesian methodology, especially the development of objective priors; for contributions to Bayesian applications including spatial modeling, disease mapping, multivariate time series analysis, and wildlife models; and for leadership in the objective Bayesian community.

JD Wilde (MS '04) is now with the Corporate Executive Board in Washington, DC.

Send us your news/Update your Information:
www.stat.purdue.edu/alums/update_information.php

THANK YOU



Reviewing the generosity of our alumni and friends is a humbling exercise each year. It is with heartfelt thanks that we recognize those whose generosity helps to make Purdue statistics world class. Thank you!

This past year was highlighted by the generosity of **Dr. David Moore** and his wife, Nancy. Inspired by the appointment of **Dr. William Cleveland** as the second Shanti S. Gupta Distinguished Professor by the Purdue Board of Trustees, the Moores have pledged to match the next \$100,000 raised by alumni and friends to support the Shanti S. Gupta Fund.

We are also thrilled to announce a new award this year, the William J. Studden Publication Award. The department established the award to honor **Prof. William Studden's** retirement after more than 40 years on the statistics faculty. It will recognize a PhD student enrolled in the department who has had at least one outstanding paper accepted for publication in a mathematical statistics journal. We are very pleased to honor a man that has given so much to Purdue statistics.

We look ahead to many similar highlights in the upcoming year. In addition to meeting **David and Nancy Moores'** challenge and building the William J. Studden Publication Award Fund, the department will focus on creating more and better opportunities for our undergraduate and graduate students through financial aid. Combating the challenges of the rising cost of higher education and fierce competition for the nation's most talented students through scholarships and fellowships will be a priority for Purdue statistics.

Again, we thank you, our alumni and friends, for your loyalty and generosity. The key to the success of our department is indeed, in your hands!

If I can be of any assistance or answer any questions you may have regarding your philanthropy, please do not hesitate to call me at 765-496-7502, email bfein@purdue.edu, or write to 915 W. State Street, West Lafayette, Indiana, 47907.

Bente Fein
Director of Development

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Mustafa Kavvas

Karen Stechuchak

Dexter and Jane Whittinghill

Alumni, have you visited the new Department of Statistics alums Web page yet? On these pages, you'll find information about alumni events, news from the department and from other alumni, Statistics Distinguished Alumni award recipients, and alumni profiles.

You can check out the alums Web pages by visiting <http://www.stat.purdue.edu/people/alums>. We love to hear about what's been happening in your life, so if you have news to share with us or would like to update your information with us, you can submit your news online by following the "Send Us Your News/Update Your Information" link found on the alumni page.

Is there something you'd like to see on these pages? Please let us know by sending your suggestions to webmaster@stat.purdue.edu.

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