

2008-20<mark>09</mark>

A Message from the Interim Department Head



"For Today's Graduate, Just One Word: Statistics"

- Steve Lohr, New York Times

Dear Alums and Friends of Purdue Statistics.

I have exciting news! Statistics is making the headlines. The August 6, 2009 *New York Times* article by Steve Lohr highlighted statistics as one of the hottest fields for today's graduates. The article highlights the massive amounts of data that are being collected in every walk of life and the growing need to use these data to make informed decisions. The theory and application of statistics, together with the power of computing, is having its heyday, and Purdue Statistics is perfectly positioned to benefit from this newfound fame.

CONTENTS

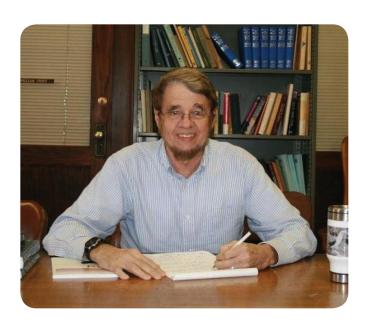
- 2 Alumni News
- 8 New Faculty
- 18 Student News
- 23 STATCOM Update
- 24 Graduates
- 30 Computing Facilities
- 34 Donor Recognition



As we begin a new academic year, I am very happy to report that Mary Ellen Bock has returned from a refreshing sabbatical and has resumed the duties as head of department. While being interim head for a year has been a great experience for me, it is really nice to have Mary Ellen home; we missed her! For those of you who were not able to attend the wonderful Purdue Statistics reception at the August 2009 Joint Statistical Meetings (Washington, DC), Mary Ellen announced that she will be stepping down as head to return to her teaching and research duties in the department, effective July 1, 2010. The focus that she has provided in directing the growth of the department over the last 15 years is truly visionary!

(continued on page 5)

DISTINGUISHED SCIENCE ALUMNUS AWARD



2009 Distinguished Science Alumnus Award William Stout

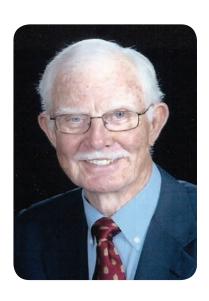
(MS '64, statistics; PhD '67, probability, Purdue University)

As a professor in the University of Illinois at Urbana-Champaign Department of Statistics (1967-2001), William F. Stout explored the interface of educational assessment, psychometrics, and statistics. Author of more than 60 writings on psychometrics, Stout has received numerous grants for his research, including National Science Foundation support throughout his career. He is most proud of his former PhD students who include a *Psychometrika* editor, Psychometric Society presidents, and five national thesis awardees. Stout currently serves as a research professor at the University of Illinois at Chicago's Learning Sciences Research Institute.

"Receiving the Distinguished Science Alumnus award was a great honor. Moreover, the actual events surrounding the award were a wonderful experience for myself and also for my wife. Everybody involved at Purdue both in the Department of Statistics and at the college level worked hard to make it a memorable event, and in fact it was one of my nicest professional experiences ever. I even got to visit with some old friends back in the Department of Statistics. I confess I am proud of this award and keep the plaque nicely displayed in our living room! In these tight financial times, it speaks highly of Purdue that it maintains this wonderful tradition of awarding outstanding science graduates."

— Dr. William Stout

OUTSTANDING STATISTICS ALUMNUS AWARD



2008 Outstanding Alumnus Award H. Paul Root

(MS '59, mathematical statistics; MS '63, industrial administration; PhD '69, marketing, Purdue University)

H. Paul Root served as the president of the Marketing Science Institute (MSI) in Cambridge, Massachusetts from 1990 to 1998. MSI is recognized as one of the most prestigious institutes in the world due to its grants to academics based on a set of mutual learning priorities established mutually between business executives and academics in marketing and related disciplines. Throughout his long and varied career, he also has worked in quality control and as a reliability statistician in the semiconductor R&D department of the Delco Electronics Division of General Motors, as director of admissions for the MSIA program at the Krannert School of Management, as a member of the faculty at the University of Michigan's business school, and as a member of the finance staff of General Motors. Root received his BS in mathematical statistics from Purdue University in 1959 and earned an MS in industrial administration in 1963 and a PhD in marketing in 1969 from Purdue's Krannert School of Management.

"I was surprised and honored to receive an outstanding alumnus award. The best part of this was the opportunity to visit with the faculty and students of the statistics department. It is encouraging to see all of the exciting things underway in the department, in the science school, and throughout Purdue."

Dr. H. Paul Root

ALUMNUS PROFILE

Gonzalo R. Mendieta (MS, 1984)

Gonzalo R. Mendieta, vice president of academic affairs, professor of Mathematics and Statistics, Universidad San Francisco de Quito, has always been interested in academia. He feels fortunate that he has been able to experience academia from many different positions at all levels.



Mendieta received his master of science degree in statistics from Purdue University in 1984 and a PhD in statistics from the University of Iowa in 1987. After graduating from the University of Iowa, he became an assistant professor of mathematics and statistics at Wichita State University (WSU) in Kansas, where he served as principal of the Statistical Consulting Group from 1990 to 1994. Mendieta participated in several research opportunities while at WSU, including work in tomography, quality engineering, and discrimination in the electoral system. In 1994, he planned a two-year visit to Universidad San Francisco de Quito, the leading private university in Ecuador, and has been there ever since.

Mendieta is currently the vice president of academic affairs at the Universidad San Francisco de Quito. He also has held several other positions, including academic coordinator of the MS program in technology management, academic dean of the San Francisco de Quito Community College, food and beverage manager, dean of the School of Hospitality, Gastronomy, and Tourism, acting director of the MBA program, and director for academic excellence and institutional effectiveness. Since 2001, Mendieta has served as the executive president for Spectrum Opinión y Mercado, a public opinion and market research firm whose clients include government leaders, pharmaceutical companies, banks, and home appliance stores.

While Mendieta currently spends much of his time in administration, he still finds time to teach at least one statistics course each semester. "Statistics gives you the ability to understand the effects of randomness," he says. "That mental skill can be applied in many situations." The academic and life experiences gained at Purdue have served Mendieta well over the years. The teaching skills he gained at Purdue have proven to be very useful in the classroom, and what he learned about the inner workings of Purdue Statistics by interacting with the faculty provided him with an early foundation upon which he has built his administrative career.

As for advice to current students, Mendieta suggests cultivating interests outside of normal class-room instruction and exploring interdisciplinary studies. "Not being afraid to do things outside one's field of expertise is very important," says Mendieta. It was mediation skills that helped him acquire the position as dean of the School of Hospitality, Gastronomy, and Tourism. At the time, the school was in a state of turmoil, but within two years, he had transformed the curricula and opened two new restaurants and a bakery. "When you think from outside the box, you get great ideas," he says.

In his free time, Mendieta enjoys cooking, reading, and researching cooking and wine. He serves as a member of the board of La Cofradia del Vino, an organization dedicated to promoting wine and its culture, as well as several professional associations of chefs.

Interim Head's Message (continued from page 1) Under Mary Ellen's direction, Purdue Statistics continues to thrive as a 21st century department. We welcome Xiao Wang and Lingsong Zhang as assistant professors to our faculty. Raphael Wolf joined our Information Technology (IT) staff as the PC specialist. Becca Miller has been promoted to the graduate secretary position, and Holly Graef joined our team as receptionist/ textbook deputy. As many of you know, Norma Lucas retired after 39 years. (Please see the article on page 6.) We are proud to announce the Norma Lucas Administrative Professional Excellence Award, which honors Norma's selfless service to the department. If you would like to contribute to the Lucas Fund, please do so online through the Purdue University Development Office (https://awc.alumni.purdue.edu/ud_mag.asp). Please specify College of Science - Statistics and enter Lucas Fund under Special Instructions. If you have questions, please contact Sandy Howarth, director of development, at (765) 496-7502 or showarth@purdue.edu.

Finally, as we look to a new year, I would like to invite everyone to attend the Purdue reception on Sunday, August 1, 2010, at 6:30 p.m. at the Joint Statistical Meetings in beautiful Vancouver, Canada. Please look for more information at the Purdue Statistics Web site (www.stat.purdue.edu). Children and families are more than welcome!

Go Boilers!

Rebecca Doerge



Statistics faculty wish Norma the best!

NORMA LUCAS RETIRES AFTER 39 YEARS



Norma Lucas, administrative assistant to the head of the Department of Statistics, retired in August after 39 years with the department. Norma began her employment in the department in May 1970. She was promoted as Typist I to an administrative assistant in 1989.

Among her many accomplishments while in the Department of Statistics, Norma is most proud of being the recipient of the 2004 Special Merit Award given for exceptional service outside of one's normal job responsibilities. And, Norma has been the United Way Captain for the Department of Statistics for 20 years. Because of her diligent efforts, nearly 100% of the department's pledge cards were returned each year.

One fond story that Norma recalls took place in January 1971, when the department head's secretary left Purdue, effectively making her the head secretary. Professor Shanti Gupta, the head of the Department of Statistics, was concerned that Norma was too young to be the head secretary at 21 years old. She continued to sub in the head secretary's position until he decided that she was the right person for the job. Gupta eventually hired Norma as the head secretary and supervisor of the clerical staff. She remained his assistant for 25 years until he stepped down as head in 1995. Norma and Gupta laughed many times of how she was "too young" to have that position.

On July 1, 1995, Mary Ellen Bock became head of Statistics and she immediately recognized that Norma was still perfect for the job as administrative assistant to the head. Norma has served in that position ever since.

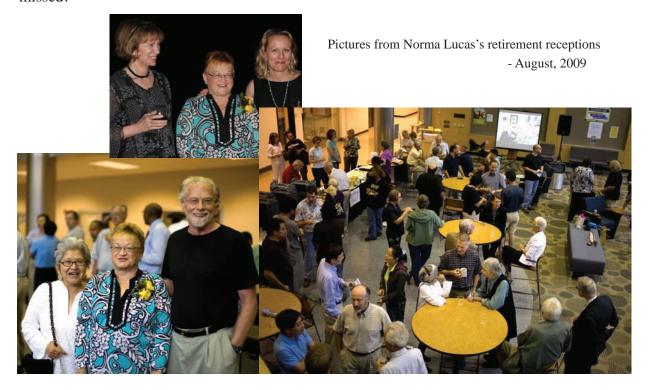
Norma and her husband Bill are the parents of one daughter, Christine Bombyk, and a step-daughter, Betty Jean Bryant; they are the proud grandparents of two grandchildren (Brandon and Terry Bryant), with whom they enjoy spending time. Norma and Bill plan to spend as much time as they can traveling on their



Goldwing motorcycle across country. Norma also wants to relax and reacquaint herself with scrapbooking, reading, antique shopping, cooking, and annoying her husband.

Norma wanted to share with the wonderful faculty, staff, students, and alumni that she has worked with and met over the years that she truly loved her job in the Department of Statistics and that she will miss everyone!

From the Department of Statistics faculty, staff, students and alumni, "THANK YOU NOR-MA!" for giving your time and talents to the department for the last 39 years! You will be missed!



DEPARTMENT ESTABLISHES NORMA LUCAS ADMINISTRATIVE PROFESSIONAL AWARD

At the retirement reception of Norma Lucas on August 28, 2009, the Department of Statistics announced the establishment of the Norma Lucas Administrative Professional Excellence Award to honor her high level of service to the department for 39 years. The annual award will honor one or more staff members in the Department of Statistics to recognize exceptional service, dedication, and/or loyalty to the department. For more information about the award, please view the Norma Lucas Administrative Professional Excellence Award Fund page. If you would like to contribute to the fund, the easiest way is to make your donation online through the Purdue University Development Office. Please specify College of Science - Statistics and then enter Lucas Fund under Special Instructions on the form. If you have questions, please contact Sandy Howarth, director of development, at (765) 496-7502 or showarth@purdue.edu.

NEW FACULTY



Assistant Professor, Fall 2008

Guang Cheng joined the Department of Statistics as an assistant professor. He received his PhD in Statistics from the University of Wisconsin-Madison in 2006. Before coming to Purdue University, Cheng was a visiting assistant professor at Duke University (2006-2007) and a postdoctoral fellow at the Statistical and Applied Mathematical Sciences Institute (SAMSI) (2007-2008).

Assistant Professor, Fall 2008

Sergey Kirshner joined the Department of Statistics as an assistant professor. He received his PhD in information and computer science in 2005 from the University of California, Irvine. After that, he spent another year at the Computer Science Department at UCI as a postdoctoral scholar, and another two years as a postdoctoral fellow at the Alberta Ingenuity Centre for Machine Learning in the Department of Computing Science, University of Alberta, Canada.





Assistant Professor, Fall 2008

Bo Li joined the Department of Statistics as an assistant professor. She received her PhD from Texas A&M University in 2006. Previously she worked as a post graduate scientist for the National Center for Atmospheric Research (NCAR) in Boulder, Colorado.

Stephen J. Ruberg joined the Department of Statistics this summer as an adjunct professor. He is a senior research fellow, Global Medical Information Science, for Eli Lilly and Company, where he is responsible for technical leadership in the areas of global statistical sciences and global data sciences, supporting a broad range of discovery, development, medical and manufacturing projects. He received his PhD in biostatistics from the University of Cincinnati in 1984. In 1994, he was elected fellow of the American Statistical Association.





Walid K. Sharabati joined the Department of Statistics as a visiting assistant professor. He received his PhD in computational statistics: network theory from George Mason University, Virginia. His research interests include network theory, social networks, population ecology, chaos (chaotic dynamical systems), data mining (text mining), data visualization, machine learning, mathematical physics, and partial differential equations.



S.V.N. Vishwanathan joined the Department of Statistics as an assistant professor. He has a joint appointment with the Department of Computer Sciences. Professor Vishwanathan received his PhD in computer science from the Indian Institute of Science, Bangalore, India, in 2002. Previously he served as the principal researcher for the Statistical Machine Learning Program, NICTA, Canberra, Australia.

Tao Wang joined the Department of Statistics this semester as a visiting assistant professor. She received her PhD in computing science from the University of Alberta, Canada, 2007.



Dr. Jun Hui joined the Department of Statistics in October as a visiting scholar. He received his PhD in statistics from the University of Science and Technology of China in 2008. His research interests include time series, functional data analysis, and parametric and nonparametric statistics. Hui will be working with Professor Chuanhai Liu and other colloborators during the next year in several areas, including time series and change point.

Jin Yu joined the Department of Statistics in January as a visiting scholar. She is working with Professor S.V. N. Vishwanathan to complete requirements toward her doctoral degree from the Australian National University. Yu received her master in artificial intelligence in 2004 from Katholieke Universiteit Leuven (KUL) and her bachelor's degree in electrical engineering in 2000 from Civil Aviation University of China.



Xinhua Zhang joined the Department of Statistics in February as a visiting scholar. He is working with Professor S.V. N. Vishwanathan to complete requirements toward his doctoral degree from the Australian National University.

Choon Hui Teo joined the Department of Statistics in March as a visiting scholar. He is working with Professor S.V. N. Vishwanathan to complete requirements toward his doctoral degree from the Australian National University. Teo received his bachelor's degree in computer science in 2005 from Universiti Tunku Abdul Rahman, Malaysia, and a diploma in computer science in 2003 from Tunku Abdul Rahman College, Malaysia.



ACCOMPLISHMENTS

Congratulations to **Michael Levine** and **Tonglin Zhang** on their recent promotions to associate professor. Their positions were effective on August 17, 2009.



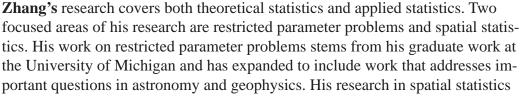
Michael Levine received his PhD in statistics from the University of Pennsylvania in 2003 and joined the Department of Statistics in the same year.

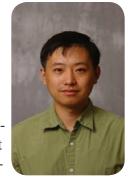
The main focus of **Levine's** research is on statistical methodology. His research is mostly concentrated in nonparametric function estimation problems (such as density estimation and nonparametric regression-related problems) and nonlinear time series. The models considered in those areas are very important in practice since traditional parametric assumptions are often either irrelevant or hard to justify in many practically important areas, such as financial data (stock returns/currency exchange rates), flood data from hydrology, and climate data from the earth and at-

mospheric science. The results obtained by Levine help to provide accurate forecasts of future events that are often not achievable using more traditional methods. He also is interested in nonparametric statistical decision theory, which becomes important when the use of the above mentioned nonparametric estimation procedures need to be justified. His work in statistical theory and applications is supported by the National Science Foundation (NSF).

Levine helps to coordinate the Computational Finance Program at Purdue University. The program was created to offer graduate students an opportunity to earn master's degrees and PhDs with an emphasis on quantitative finance. The program consists of Purdue faculty members with academic and research interests in cutting-edge investment science.

Tonglin Zhang received his PhD in statistics from the University of Michigan in 2002, and joined the Department of Statistics at Purdue University in the same year.





represents a relatively new and highly productive research area and has expanded to include work that addresses important problems in public health, criminology, ecology, earth and environmental sciences, and the defense of biochemical and nuclear terrorism. **Zhang** currently has two NSF-supported projects in spatial statistics.

In 2007, **Zhang** received the Outstanding Assistant Professor Undergraduate Teaching Award.



Congratulations to Ellen Gundlach, continuing lecturer in statistics, on being named an associate fellow in Purdue's Teaching Academy. She, along with 13 others, was inducted into the Teaching Academy at a ceremony in October 2008.

Gundlach also received a 2008-2009 Instructional Development Center (IDC) Distance Education Incentive Award for the online STAT 301 Elementary Statistical Methods course. The goal of the IDC Distance Education Incentive Awards Program is to provide support to and award Purdue faculty for the development of high-quality distance education courses at Purdue University in West Lafayette. The online STAT 301 Elementary Statistical Methods course was deemed a good educational resource for distance education students in the areas of course design, innovative and effective use of technology tools, assessment of student learning and course content, and learner support. The course was showcased at the Teaching and Learning Technologies (TLT) Conference in April 2009.

Gundlach is the coordinator, online course developer, and an instructor for STAT 301, and the course coordinator for STAT 225. She finds incorporating fun, hands-on activities into the classroom helps students understand and master elementary statistical methods. Some of the innovative teaching methods she's incorporated into the classroom include using paper airplanes to teach experimental design, using gummy-bear popsicle-stick catapults to

teach one-way and two-way ANOVA, using M&Ms to teach two-way tables, and using chocolate chip cookies to teach the t tests and confidence intervals. Writing about statistics also is a key component in STAT 301, and she is one of the first instructors at Purdue to incorporate the Peer Review online writing and peer evaluation system developed by UCLA.

In September 2008, AHIC Successor, Inc. announced the appointment of **Stephen J. Ruberg** to its board of directors.



Ruberg joined the Department of Statistics as an adjunct professor of statistics in summer of 2008. He is a senior research fellow, global medical information science, for Eli Lilly and Company, where he is responsible for technical leadership in the areas of global statistical sciences and global data sciences, supporting a broad range of discovery, development, medical and manufacturing projects. He received his PhD in biostatistics from the University of Cincinnati in 1984. In 1994, he was elected fellow of the American Statistical Association. His research interests include global clinical drug development, medical informatics, statistical consulting/collaboration, and statistical methodology related to dose response and multiple comparisons.



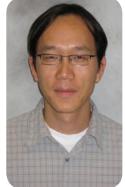
Olga Vitek, assistant professor of statistics and computer science, was awarded the Teaching for Tomorrow Award for 2008-2009. The Office of the Provost annually selects a class of faculty to receive this award. Three senior faculty considered to be best teachers are selected to serve as team leaders, and no more than 12 junior faculty who have demonstrated potential as teachers are selected. Working in teams, the faculty address topics throughout the year that can enhance the learning environment across Purdue. In addition, the program provides professional development funds to each member of the class to further enhance his or her skills as a teacher-scholar.

Vitek joined the Department of Statistics in 2006. She earned her PhD in statistics from Purdue University. Her main research interest is statistical proteomics, with applications to systems biology approaches to disease. Since coming to Purdue, she has taught Statistical Methods for Biology, Intermediate Statistical Theory, and Statistical Methods for Bioinformatics and Computational Biology. She participated in the National Science Foundation (NSF)-funded interdisciplinary course, Introduction to Computational Thinking, which introduces undergraduate students majoring in science to computation and data management concepts.

Vitek also was elected as the College of Science Faculty Council Representative.

Luo Si, assistant professor in statistics (courtesy) and assistant professor of computer science, was granted the prestigious Faculty Early Career Development (CAREER) Award by the National Science Foundation. The CAREER program recognizes and supports the early career development activities of teacher-scholars who most effectively integrate research and education within the context of the mission of their organization. **Si** received the award for a proposal titled "An Integrated and Utility-Centric Framework for Federated Text Search," which will research ways to search the Web more efficiently.





Microsoft Research selected Professor **Yuan** (**Alan**) **Qi** as one of ten recipients of the 2007 A. Richard Newton Breakthrough Research Award. This prestigious award went to **Qi** for his project "Integrated Probabilistic Models of Regulatory and Metabolic Networks for Biofuels Research," which he undertook with Professor Clint Chapple of Purdue Biochemistry.

The Microsoft Research Breakthrough Award supports research that potentially will have great impact on the world's most important problems. The selected work exhibits cutting-edge computational techniques, which through

interdisciplinary work widely benefit science and society. In line with Breakthrough Award attributes, **Qi**'s collaborative work shows "promising new approaches for enabling their solution."



Guy Lebanon, assistant professor in the Department of Statistics, the Department of Electrical and Computer Engineering, and the Department of Computer Sciences (courtesy), was granted the prestigious Faculty Early Career Development (CAREER) award by the National Science Foundation. The CAREER program recognizes and supports the early career-development activities of teacher-scholars who most effectively integrate research and education within the context of the mission of their organization. The five-year grant was awarded for his proposal titled "Multiresolution Representations of Documents," which aims to study new sequential representations for documents and their applications in statistical document modeling and visualization.

Mary Ellen Bock, department head and professor of statistics, was selected to serve on the board of trustees for the National Institute of Statistical Sciences (NISS). Bock, who will serve three years as a member of the board, also was selected to serve on the institute's executive committee. The National Institute of Statistical Sciences was established in 1990 by the national statistics societies and the Research Triangle universities and organizations, with the mission to identify, catalyze, and foster high-impact, cross-disciplinary research involving the statistical sciences.





George McCabe, professor of statistics and associate dean for academic affairs for the College of Science, was appointed to an Institute of Medicine committee charged with reviewing and providing recommendations to revise the meal patterns and nutrition standards of the National School Lunch Program and School Breakfast Program. The recommendations are to reflect new developments in nutrition science, increase the availability of key food groups in the school meal programs, and allow these programs to better meet the nutritional needs of children, foster healthy eating habits, and safeguard children's health. The study, sponsored by the U.S. Department of Agriculture, Food, and Nutrition Service, began in February and is expected to last 24 months.

McCabe has worked with the Institute of Medicine before; in 1996-1997 he served on the committee for international nutrition, and in 2001-2003, he worked on the Committee on the Use of Dietary Reference Intakes in Nutrition Labeling.

In January 2008, Professor **Anirban DasGupta** became the editor of the *IMS Lecture Notes-Monograph Series* (LNMS) and *IMS Collections*. **DasGupta** also currently serves as associate editor of the *Annals of Statistics*, *Statistics Surveys*, and *Metrika*. In the past, he has served as associate editor for the *Journal of the American Statistical Association*, *Journal of Statistical Planning and Inference*, *International Statistical Review*, and *Sankhya*.



Statistics Members Recognized at College of Science Faculty and Staff Recognition Luncheon



Mary Ellen Bock, professor of statistics, received the Leadership Award. She was honored for excellence in faculty leadership that improves the environment for faculty, staff, and students and promotes diversity and inclusiveness in the College of Science.

Cheryl L. Crabill, Web master, received the Professional Achievement Award, which recognizes exceptional staff contributions to the College of Science. Individuals receiving this award consistently perform assigned duties at an exceptional level, go above and beyond the normal expectations, volunteer for additional assignments, maintain a professional manner, and serve as a role model for other staff.



James W. Dobbin, continuing lecturer in statistics, received the Undergraduate Advising Award, which recognizes College of Science faculty who excel in the advising and mentoring of undergraduate students in their professional and personal growth. Individuals receiving this award effectively nurture the professional and personal growth of undergraduate students.

Mary Roe, administrative, was recognized for 20 years of service to Purdue University.



Herman Rubin, professor of statistics, professor of mathematics, received the Graduate Mentoring Award, which recognizes excellence by College of Science faculty in the mentoring of graduate students. Individuals receiving this award effectively nurture the professional and personal growth of graduate students.

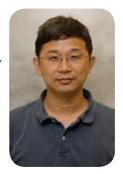
Luo Si, assistant professor of statistics (courtesy), assistant professor of computer science, received the Engagement Award, which recognizes excellence in engagement by College of Science faculty. Si was nominated by the Department of Computer Science for exhibiting the characteristics of innovation and impact.

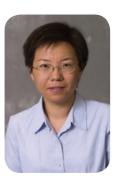




Triva Woodley, business manager, Department of Statistics and Department of Mathematics, and assistant director financial affairs, College of Science, was jointly nominated by the Department of Statistics and the Department of Mathematics to receive the Customer Service Award. This award recognizes outstanding customer service within the College of Science. Individuals receiving this award exhibit a consistent pattern of congenial behavior to all contacts and treat others with respect. They also have a positive attitude even under the most difficult circumstances and anticipate the needs of others and take appropriate action.

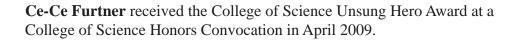
Dabao Zhang, assistant professor of statistics, and **Min Zhang**, assistant professor of statistics, received the Interdisciplinary Award, which recognizes interdisciplinary efforts by teams of faculty and staff in the College of Science. Teams receiving this award have produced an extraordinary and significant outcome as the result of a current or recent collaborative effort.







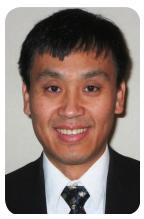
Mark Daniel Ward received the 2008-2009 Department of Statistics Outstanding Assistant Professor Undergraduate Teaching Award.





MYRA SAMUELS MEMORIAL LECTURE

Hongzhe Li was the invited speaker for the Myra Samuels Memorial Lecture which was held on April 2, 2009. The title of his talk was "High Dimensional Statistics in Genomics: Some New Problems and Solutions."



Li is a professor of biostatistics in the Department of Biostatistics and Epidemiology at the University of Pennsylvania School of Medicine. He is currently serving as the associate editor of the *Journal of the American Statistical Association* and is a founding associate editor of *Statistics in Biosciences*. In addition, he is a regular member of NIH Biostatistics Methods and Research Design (BMRD) Study Section and serves on the Education Committee of the International Biometrics Society. Li is an elected fellow of the American Statistical Association and an elected member of the International Statistical Institute.

Li received a PhD in statistics in 1995 from the University of Washington in Seattle. His research interests focus on developing statistical, probabilistic, and computational methods for genetic and genomic data analysis, bioinformatics, and computational biology. Li has developed improved linkage and association analysis methods for mapping genes for complex human diseases. He is currently developing statistical methods for analysis of microarray time course gene expression data, methods for linking high-throughput genomic data such as microarray gene expression data, and array CGH data to censored survival data and methods for inferences of genetic networks.

The Myra Samuels Memorial Lecture is named in memory of Myra Samuels, who was associate professor of biostatistics and epidemiology in Purdue's Department of Veterinary Pathobiology and associate director of statistical consulting in the Department of Statistics.

Professor Hongzhe Li (fourth from left) with department faculty Jian Zhang, Hao Zhang, Yuan (Alan) Qi, and Dabao Zhang.



PREM S. PURI MEMORIAL LECTURE

Srinivasa Varadhan, professor of mathematics and the Frank Jay Gould Professor of Science, Courant Institute of Mathematical Sciences, New York University, was the invited speaker for the Prem S. Puri Memorial Lecture held on April 30, 2009. The title of the talk was "Some Unusual Large Deviation Results."

Varadhan received his undergraduate degree in 1959 from Presidency College in Madras (Chennai), and his PhD in 1963 from the Indian Statistical Institute in Calcutta. He has spent his entire professional career at the Courant Institute of Mathematical Sciences, New York University, in New York City.



Varadhan initiated and developed the theory of large deviations, a powerful analytic and predictive tool and framework capable of describing rare events, which has become a cornerstone of modern probability theory. The implications of his work cover diverse areas that range from quantum field theory and statistical mechanics to population dynamics and traffic control. His work also has considerably enhanced computer simulations of rare events. In related and equally highly regarded work, Varadhan and Daniel Stroock studied diffusion processes and their differential operators, developing their characterization via the concept of martingale problem, and obtaining important results in population dynamics.

Varadhan is a member of the National Academy of Sciences, the American Academy of Arts and Sciences, the Royal Society, and the Third World Academy of Sciences. He has received many awards and honors, including the Birkhoff Prize (1994), the Margaret and Herman Sokol Award of NYU's Faculty of Arts and Science (1995), the American Mathematical Society's Leroy Steele Prize (1996), an Alfred P. Sloan Fellowship, and a Guggenheim Fellowship. In 2007, the Norwegian Academy of Science and Letters awarded him the Abel Prize in Mathematics, which carries recognition similar to the Nobel prize, for "his fundamental contributions to probability theory and in particular for creating a unified theory of large deviations." The Academy characterized this work as "hugely influential," and noted its "great conceptual strength and ageless beauty." He is a fellow of the Institute of Mathematical Statistics and the Indian Academy of Sciences.

The Prem S. Puri Memorial Lecture is named in memory of Professor Prem S. Puri.

STUDENT AWARDS Undergraduate Awards

Actuarial Science Award Winners

Actuarial Science Alumni Scholarship

William McCartney

Dan Rubin Scholarships

Thomas Edson Trent Sahlin

Swiss Re Scholarships

Angela Hancock Rebecca Lumley Elizabeth Moss

AEGON Scholarship

Eric Krafcheck



Pictured left to right: Elizabeth Moss, Parker Crosby, Trent Sahlin, William McCartney, Rachel Smith, Richard Penney, Rebecca Lumley, Angela Hancock, Thomas Edson, Eric Krafcheck, Alex Morton

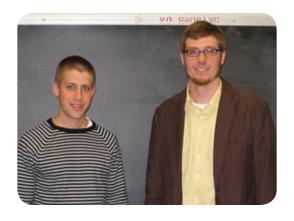
College of Science Outstanding Students

Rachel Smith - Senior in Actuarial Science Alex Morton - Junior in Actuarial Science Eric Krafcheck - Sophomore in Actuarial Science Parker Crosby - Freshman in Actuarial Science Arman Sabbaghi - Senior in Statistics Kean Ming Tan - Junior in Statistics Thomas Nielsen - Sophomore in Statistics William McCartney - Freshman in Statistics

Glen E. Baxter Award

Philip R. Hebda

Joshua D. Rendall



David S. Moore Undergraduate Scholarship

Kyle Bemis

Angela Hancock

V. L. Anderson Scholarship Award

Adriana Vars



Interim Dean John Harbor and Adriana Vars

STUDENT AWARDS

Graduate Student Awards

I. W. Burr Award

David Anderson



Lingling An



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



Pictured left to right: Winner Brian Denton, Dean Harbor, Emeritus Professor Louis J. Cote

Award for Outstanding Teaching by a Statistics Teaching Assistant



Professor Rebecca Doerge and winner Ryan Martin

StatCom Community Service Award





Douglas Baumann

Interim Dean Harbor and co-winner Allison Cummins

Purdue University Graduate Student Teaching Award for Outstanding Teaching



Allison Cummins

William J. Studden Publication Award



Interim Dean Harbor and winner Ryan Martin

OF SPECIAL MENTION



Congratulations to Ryan Martin! He is one of the winners of the American Statistical Association's Section on Bayesian Statistical Science (SBSS) student paper competition for research on Bayesian methodology, including applied, computational, and theoretical work. The paper, co-authored with Surya Tokdar, Morris H DeGroot Visiting Assistant Professor of Statistics, Carnegie Mellon University, and Department of Statistics alum, was titled, "A Nonparametric Empirical Bayes Framework for Simultaneous Significance Testing." Ryan received partial support to present his paper at the 2009 Joint Statistical Meetings, held in Washington, DC, from August 1 to 6.

Ryan received his PhD in August of 2009. His advisors are Jayanta Ghosh and Chuanhai Liu.

Congratulations to Tilman Achberger, Sara Laurentz, Sanvesh Srivastava, and David Young on earning the Graduate Teacher Certificate (GTC). The students received their certificates at the Celebration of Graduate Student Teaching held on April 23, 2009. The GTC, centrally administered through Purdue's Center for Instructional Excellence (CIE), is documentation of a graduate student's involvement in actual classroom teaching, and teacher development activities, (i.e., pre-semester teaching orientations and workshops micro-teaching with consultative feedback, classroom visitations or videotaping, together with student and peer feedback, and self analyses).



Pictured left to right: Sanvesh Srivastava, Sara Laurentz, and David Young. Not pictured: Tilman Achberger.

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 NEWS

STATCOM UPDATE

by Allison Cummins, Director

StatCom at Purdue University, which offers pro bono statistical services to non-profit organizations, has continued to expand each of its three branches, consulting, P-12, and network outreach.

In the consulting branch, StatCom has been involved in six consulting projects this past year. Most of these projects involved writing and analysis of surveys, including fundraising for the Red Cross Heroes Campaign, recycling in West Lafayette, and discrimination in Tippecanoe County. StatCom also has been contacted for potential projects including the Lafayette Farmers Market, and helping counties in Indiana enhance community. StatCom members also are trying to draw in new clients by giving presentations on the kinds of services they offer.

The network outreach branch of StatCom is continuing to expand the number of StatComs in existence by applying for a travel grant to target the top 10 statistics departments in the United States. Plans include visiting these colleges and universities to hold open meetings and instruct interested students on how they can start their own StatCom. It is a desire for StatCom to have a unified logo in which the color of the logo can be school specific. The logo designs will be voted on in August at the Joint Statistical Meeting (JSM), in Washington DC. The StatCom network newsletter can be found along with other information on the StatCom page of the American Statistical Association (ASA) (www.amstat.org). This newsletter is an excellent means of communication for both members of the StatCom Network and the general public interested in probono community work. It features information about many of the consulting projects taken on over the past semester by members of the StatCom network.

The P-12 outreach members, who motivate and teach young students about the benefits of statistics, participated in a math field day held at Purdue University's Armory. During the event, groups of middle school children participated in short relay races involving probabilities, densities, Scatterplots, and equations. The P-12 group also held a booth at this year's SpringFest in April with an interactive histogram, a game of liar's dice, and gummy bear catapults, and helped score tests for the middle school Math Counts competition. Throughout the semester and continuing in the summer of 2009, the group will offer after-school math and science program for Frontier elementary school. Two students went to Indiana University Purdue University Indianapolis (IUPUI) to present at a stat career day for high school students.

We look forward to continuing to play an active role in the department, the local community, and the statistical community across the nation in the coming year!

OUR GRADUATES

A New Tradition: May 2009 statistics and actuarial science graduates were invited to gather in front of Haas Hall before commencement for a group photo.



Pictured left to right:

First Row: Zhongyin John Daye, Xinge Jessie Jeng, Megan Reineke, Rachel Smith,

Kristen Dyson, Sarah Haynes, Katherine Quinn, Kathryn Patterson,

Noor Al Sayed

Second Row: Samuel Crawford, Glen DePalma, Craig Allen, Jacob Dummitt, Andrew

Chung, Myles Handley, Nathan Orlow

Third Row: Yuan Yang, Yan Sun, Michael Hoyer, Jonathan Schaab, Steven Balog

Top Row: Dina El Souda

OUR GRADUATES

May 2008

Bachelor's in Actuarial Science

Faiz Zaidan Ali Jamie Lynn Anderson Sarah Mary Bank Trisha Bhagat Amanda Christine Brown Jason Allen Clarkson Zachary James Fohl **Brandon Scott Funk** Brittany A. Hanners Markus Philip Horstmeyer Miljan Jankovic Shannon Masumi Kiyonaga Patrick Christopher Ledbetter Zachary Dean McClish Heather Lynn McLean Kenji Nonaka Raja Noor Zehan Raja Mohd Azmi Lauran Elizabeth Raper Joshua Troy Schmidt Matthew David Seill Sarah Lyn Shoemaker Kuok Shin Teo



Bachelor's in Statistics

Faiz Zaidan Ali Jamie Lynn Anderson Sarah Mary Bank Trisha Bhagat Amanda Christine Brown Jason Allen Clarkson Zachary James Fohl Brandon Scott Funk Brittany A. Hanners Markus Philip Horstmeyer Miljan Jankovic Juile Marie Kiekenapp Ryan Justin Kilgore Shannon Masumi Kiyonaga Patrick Christopher Ledbetter Zachary Dean McClish Heather Lynn McLean Kenji Nonaka Raja Noor Zehan Raja Mohd Azmi Lauren Elizabeth Raper Joshua Troy Schmidt Matthew David Seill Sarah Lyn Shoemaker John Joseph Steenbergen Kuok Shin Teo

Graduate Certificates

Zhuowei Huang Svetlana O. Stepchenkova Sujin Yang Yuan Yang

May 2008 (Cont.)



Alan Saunders, May 2008 MS Graduate

Master's

Hao Jiang
Eduard Kolberg
Wei Li
Yanzhu Lin
Dan Mu
Kamesh Loganathan Puther
Alan Saunders
Ningying Wu
Danni Yu
Jianchun Zhang
Yang Zhao

Doctorates

Hui Chen (William S. Cleveland): Voice Over the Internet: Statistical Properties and Quality of Service

Jianying Zhang (William S. Cleveland): Algorithm-based Statistical Modeling with Application to Multi-Sensor Tracking Data with Missing Values

August 2008

Bachelor's in Actuarial Science

Evan Hadiwidjaja

Bachelor's in Statistics

Evan Hadiwidjaja Matthew Huhn

Graduate Certificates

Robert Harmon

Master's

Sehan Kim Bo Li Ilter Saygin Yuhong Wu Kai Yang



Professor Michael (Mihails) Levine and Jinguang (Tony) Li

August 2008 (Cont.)

Doctorates

Lingling An (Rebecca W. Doerge): *Dynamic Clustering of Time Series Gene Expression*

David Anderson (William S. Cleveland):

Multifractal Fractional Sum — Difference

Models for Internet Traffic

Jinguang (Tony) Li (Michael (Mihails) Levine): Stepwise Model Building Approach for Mixed-Effects Models with Random Scale Effects

Lei Shu (William S. Cleveland):
An Additive-Interactive Nonlinear Volatility
Model, Estimating and Testing

December 2008

Graduate Certificates

Sangbok Lee Maricio Melgarejo

Bachelor's in Actuarial Science

Kyle Allen Irene Brian James Humphrey Nora Li Zachary Murphy

Bachelor's in Statistics

Kyle Allen
Anoumou Amewou-Atisso
Denise Bradford
Irene Brian
Allison Horst
James Humphrey
Nora Li
Zhiwei Li
Zachary Murphy
Bryan White

Master's

Alexandra Chronopoulou Yunxiao He

Doctorates

Xiaoli Qi (Bruce A. Craig): Nonparametric Calibration of Two Common Susceptibility Tests Using Interval-Censored Data with Measurement Error

Suk-Young Yoo (Rebecca W. Doerge): Statistical Methods for Integrating Epigenomic Results



May 2009

Graduate Certificates

Bachelor's in Statistics

Abhiskek Bhargava Huijie Wang Shih-Ching Wu Chao-Lung Yang

Bachelor's in Actuarial Science

Noor M. Al Sayed Craig Allen Steven Balog Li Chen Andrew Chung Adam Crone Kristen Dyson Sarah Haynes Gita Himawan Michael Hover Dhaval Jadhav Petrina Kusliawan Lisa McGuire **Brett Newman** Samuel Oglesby Kathryn Patterson Katherine Quinn Jonathan Schaab **Brian Schwartz** Rachel Smith Sebastian Smith

Stephanie Spencer

Noor Al Sayed Craig Allen Steven Balog Andrew Chung Samuel Crawford Adam Crone Kristen Dyson **Emily Haas** Myles Handley Sarah Haynes Gita Himawan Daniel Holder Michael Hoyer Dhaval Jadhav Petrina Kusliawan Lisa McGuire **Brett Newman** Joy Nyenhuis-Rouch Samuel Oglesby Nathan Orlow Kathryn Patterson Katherine Quinn Arman Sabbaghi Jonathan Schaab **Brian Schwartz** Rachel Smith Sebastian Smith Stephanie Spencer Kenneth Wakeland

May 2009 (cont.)



Master's

Brian Denton
Glen DePalma
Dina El Souda
Yen-Ning Huang
Michael Lawlor
Yongjin Ma
Yanhui Ma
Megan Reineke
Gang Shen
Yan Sun
Yuan Yang
Zuoyi Zhang
Shaohua Zhou

Doctorates

Zhongyin (John) Daye (Michael Zhu): Some New Approaches in High-Dimensional Variable Selection and Regression

Xinge (Jessie) Jeng (Jayanta Ghosh, Jiashun Jin): Covariance Adaptation and Regularization in Large-Scale Hypothesis Testing and High-Dimensional Regression Nikita Tuzov (Frederi Viens):

Mutual Fund Performance and Evaluation

Methodology and Local

False Discovery Rate Approach

Lingmin Zeng (Jun Xie): Group Variable Selection Methods and Their Applications in Analyses and Genomic Data

COMPUTING FACILITIES



Doug Crabill Manager, Computing Systems

The department has been growing rapidly in recent years and the IT staff has grown to keep pace with the demands of a more computationally savvy faculty. Rafael Wolf was hired in January as the new Windows systems administrator. My Truong, formerly the Windows systems administrator, is now working as the UNIX systems administrator.

The four student computer labs are being upgraded with new 3.0 Ghz Core 2 Duo CPU's, 4GB RAM, and 22-inch monitors, with a number of the lab computers configured with dual monitors.

The scale and scope of the statistical problems faculty members are exploring in their research is growing rapidly. As a result, they need more computer power than ever before. Last year's research server purchases included 10 servers with 32GB of RAM and 8 CPU cores each. Three recently purchased Linux research servers have 128GB of RAM and 16 CPU cores each, with 24TB of disk space on one of the three servers.

Department of Statistics Information Technology staff clockwise from top right: Doug Crabill; My Truong, UNIX systems administrator; Cheryl Crabill, Web master; Rafael Wolf, Windows system administrator.



CONGRATULATIONS

NEW ARRIVALS

Business Office Manager Triva Woodley and husband Randy welcomed their second child, Addison Corrine, on February 10, 2009.

Professor Michael Zhu with wife Ruomei Fang had a daughter, JeFauna, on January 14, 2009.

PhD student **Melissa Key** had a baby boy, Nicholas on October 29, 2008, with husband Thomas.

Assistant Professor Guy Lebanon and wife Kathrin welcomed their second child, Elijah Daniel, on February 4, 2009.

PhD student **Danni Yu** and Assistant Professor **Luo Si** welcomed their first child, William Isaac Si, on April 28, 2009.

WEDDINGS

Congratulations to PhD student Libo Wang on her marriage to Yunfei Gao.

Assistant Professor Mark Daniel Ward and wife Laura had their third child, Mary Emma, on October 15, 2008.

Joanne Daggy, PhD student, and husband Chris, welcomed their third child Logan Isabelle on September 9, 2008.

PhD student **Yunxiao He** and Yanming Zhang had a baby boy, Andy He, on June 12, 2008.

Helen Shao was born on May 31, 2008 to parents Lanqing Hua, PhD student, and Xiaofeng Shao.



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

Department Head: Mary Ellen Bock Director of Development: Sandy Howarth Editor: Holly Graef

hgraef@purdue.edu

www.stat.purdue.edu

If you would like to receive your newsletter electronically, please e-mail Holly Graef (hgraef@stat.purdue.edu) with your name and current e-mail address. Thank you.

MORE ALUMNI NEWS

Robin R. Brull (BS '89) and Steven S. Fichtelberg welcomed a daughter on July 23, 2007.

James Sprung (MS '68) is currently the director of network and information integration at Nobils Inc., a non-profit science, technology, and strategy corporation.

Nik Tuzov (PhD '09) moved to Balitmore, Maryland, to work with Aegon Group, an insurer.

Aarti Sriram Ivanic (MS '02) and her husband, Rasto Ivanic, welcomed a son, Oliver, on June 20, 2008. Aarti is a PhD candidate in the marketing program at University of Southern California.

Bill Zhang (PhD math '94) is working for Affinnova Inc. with a team responsible for the analytical functions of the company.

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.

Please join us in 2012 for the Eighth Purdue International Symposium on Statistics and Related Topics

> June 20-24, 2012 Purdue University West Lafayette, Indiana

SAVE THE DATES 2010 Joint Statistical Meetings Vancouver, British Columbia, Canada

Vancouver, British Columbia, Cana Vancouver Convention Centre July 31 - August 5, 2010

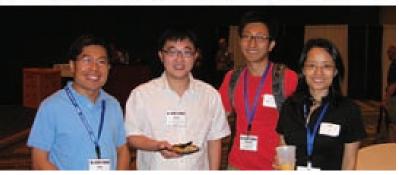
Please see

http://www.amstat.org/meetings/jsm/2010 for more information.









Pictures from the Purdue Statistics reception August 2, 2009 in Washington, DC. Pictured above left to right. Top Row: Duncan Fong (MS '84, PhD'87), Jing Yun Shyr (PhD '84), Keith Crank (PhD '86), Andrea Rau (PhD candidate, MS '07), Sandy Howarth Bottom Row: Donna Brogan (MS '62), department faculty Hao Zhang, Xiao Wang, Guang Cheng, and Bo Li

THANK YOU

Hello Statistics Alumni and Friends!



I am happy to report that once again the Purdue University Department of Statistics was recognized in the recent *U.S. News & World Report* America's Best Graduate Schools 2009. Yes, in this issue our Purdue Department of Statistics Graduate Program was ranked in the top ten of graduate programs! Through the strong leadership of Professor Mary Ellen Bock, head, and Professor Rebecca Doerge, along with extremely talented and dedicated faculty, we were able to achieve such an auspicious ranking and award. Our faculty and staff work every day to provide an educational experience that is not only top-notch but also provides amazing career opportunities for our graduates.

To achieve such an honor, we must stand by our commitment to provide only the highest level educational experience for our students. Research and courses in areas of application such as bioinformatics, genomics, massive data, machine learning, visualization, and computational finance are preparing our students for futures in industry as well as academia. To learn more about the exciting and varied research within the Statistics Department, please visit our Web site: http://www.stat.purdue.edu/research/videos/.

I also wanted to share with you that our President France Cordova's Access and Success campaign continues to encourage support for our students through the establishment of Presidential and Trustee scholarships and other initiatives that make Purdue's Statistics Department a competitor when attracting the brightest talent to our program. To all of you who have been so generous to help us in this effort — thank you! Because of your generosity, we are able to provide the necessary resources for those students who are desirous of receiving a "world-class education" from Purdue University!

Alumni, please know that we always enjoy hearing about the news in your life and career. So please don't hesitate to share your news by going online to Send Us Your News/Update Your Information link found on the Alumni page. And please do contact me if you have questions or need any assistance regarding your philanthropy to our Statistics Department.

Hail Purdue! Sandy Howarth Director of Development 765.496.7502 showarth@purdue.edu

DONORS

Major Gift Donors

T. Joseph Brown Jr David and Nancy Moore

\$1,000-1,999 Donors

Mary Ellen Bock
Wen-Jang and Mong-Na Lo Huang
Richard and Jeanette James
George and Linda McCabe
R. James and S. L. Tomkins
Jia-Yeong Tsay
David and Lillian Wang
Wai-Tou Wong
Wing-Yue and Yoon-Kwai Wong

\$500-999 Donors

Lloyd Berliner
Bruce and Jennifer Craig
Shu and Chuanhai Liu
Timothy McAuliffe
Vaidyanathan Ramaswami
Thomas and Gail Santner
Thomas and Kathleen Starks

\$100-499 Donors

Craig Bowen and Patricia Ann Metz
Yun-Pin Chen
Shindok and Bradley Coolman
Louis and Lillian Cote
Cheryl and Doug Crabill
Anirban DasGupta
Sara and Glenn Ellison
Duncan and Mosuk Fong
Prem and Veena Goel
H. Leon Harter
Zusheng Jin

\$100-499 Donors

(continued)

Kiseop Lee Lii-Yuh Leu **Brian Lichy** Jeanette and Robert Manning Gary and Jeanne McDonald **Greg Porter** Robert and Mary Rodine Larry Roi Thomas and Sarah Sellke **Thomas Smith** Gary St. Onge and Cheng-Tin Luo Carl and Debra Strauch Steven Sun Dejun Tang Xianglian Tang and Ying Chen Steven Weiner Marc Whitney Ke-Ying Ye and Limin Zheng Yuan Zhou and Chunfu Oiu Eric Ziegel

\$1-99 Donors

Sudip Bose
Michael Carniello
John Deely and Ann Young
Rebecca Elliott
Elizabeth Menson
Anita and Ashok Singh
James Stapleton
Karen Stechuchak
John Wetz
Dexter and Jane Whittinghill
Lorna and Dennis Whitty
Ryan and Katherine Wiegand

Department of Statistics Purdue University 250 N. University Street West Lafayette, IN 47907-2066

Address Correction Requested

Non-profit Organization US Postage PAID Purdue University



Department of Statistics
Felix Haas Hall
250 N. University Street
West Lafayette, IN 47907-2066
(765) 494-6030
Fax: (765) 494-0558
www.stat.purdue.edu



An equal access/equal opportunity university