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## Department of Statistics

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**NEWSLETTER**

**Fall 2004**

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*The Statistics Department Newsletter is now on our web page at:  
<http://www.stat.purdue.edu>*

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## A Message from the Department Head

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Dear Alums and Friends:

One of the critical activities of the Department is the hiring of new faculty and we were delighted to have William Cleveland from Bell Labs join us in January 2004. He brings a wealth of expertise in statistical research areas associated with computer science. A new assistant professor, Bowei Xi, from University of Michigan, Ann Arbor, also joins the department for Fall 2004. We also welcome the new Department of Statistics Director of Development, Bente Fein. She replaces Grady Jones whose position has been vacant for a number of years.

The number of graduate students grew to about 100 for Fall 2003 and fortunately we found room for all the new faculty and students. The offices in the Mathematical Sciences Building (MATH) vacated by the old PUCC (Purdue University Computing Center, now called ITaP) were available (after a great deal of reshuffling) to house the new faculty and graduate students. There is good exercise

in walking around the Department since you have to go to the Ground Floor, the Second Floor, the Fourth Floor, the Fifth Floor and the Tenth Floor of MATH.

Professor David Moore assumed the title Emeritus Professor at the end of this past academic year and we still have the pleasure of his company in the MATH building and by email.

A part of the newsletter that is most enjoyable for all of us is the section Alumni News and we are most grateful to those who send updates about other alums as well as themselves.

Thank you for your support and best wishes to you,

Regards,

A handwritten signature in cursive script that reads "Mary Ellen Bock".

Mary Ellen Bock



## 2003-04 Traveling Speakers

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**Rob Tibshirani**, Stanford University, “Least Angle Regression, Forward Stagewise and the Lasso,” June 20, 2003.

**Michael Black**, Purdue University, “Statistical Issues in the Design and Analysis of Spotted Microarray Experiments,” August 22, 2002.

**James Lyons-Weiler**, University of Pittsburgh Cancer Institute, “Challenges and Practical Solutions in the Analysis of Microarray Data,” September 2, 2003.

**Randall K. Julian, Jr.**, Lilly Research Laboratories, “The Proteomics Data Management and the Human Proteomics Initiative,” September 16, 2001.

**Stephen Hewitt**, University of Pittsburgh Cancer Institute, “Tissue Arrays and Protein Arrays: New Methods, New Challenges,” September 23, 2003.

**Jeff Varner**, Genencor International, Inc. “Integrating (x)omics Technologies with Protease Production in *Bacillus Subtilis*,” September 30, 2003.

**William J. Browning**, Founder and President of Applied Mathematics, “Some Applications of Mathematics in Industry,” October 1, 2003.

**Dina St. Clair**, University of California, Davis, “Dissecting Quantitative Disease Resistance: from QTL Mapping to Global Gene Expression Analysis,” October 7, 2003.

**Hernando Ombao**, University of Illinois at Urbana-Champaign, “The SLEX Method for Discrimination and Classification of Non-Stationary Time Series,” October 23, 2003.

**John Story**, University of Washington, Seattle, “False Discovery Rates in DNA Microarray Experiments,” November 4, 2003.

**Scott Tingey**, Dupont, “Maize Genome Organization and Its Implications for Applied Genetics,” November 18, 2003.

**Yong Duan**, University of Delaware, “Folding, Binding, Aggregation: a Computational Perspective,” January 20, 2004.

**Joanna Masel**, Stanford University, “Can Natural Selection Favor Evolvability? Yeast Prions as Evolutionary Capacitors,” January 27, 2004.

**Dennis R. Livesay**, Cal Poly Pomona, “Engineering Thermostability: Toward the Design of Highly Stable Protein Mutants that Maintain Function at Lower Temperatures,” February 3, 2004.

**Shikhar Ranjan**, Credit Derivative Analytical Research Group at Morgan Stanley, New York, “Math for Credit,” February 6, 2004.

**Chin-Rang Yang**, University of California, Irvine, “An Enzyme Mechanism Language for the Mathematical Modeling of Metabolic Pathways,” February 10, 2004.

**Mahlet Tadesse**, Texas A&M University, “Bayesian Variable Selection Method for the Analysis of Genomic Data,” February 13, 2004.

**Kwong Hiu Yung**, Stanford University, “Update Algorithms for Masquerade Detection”, February 25, 2004.

**Jianqing Fan**, Princeton University, “High-Dimensional Semilinear Model for Analysis of Microarray Data: Theoretical Exploration and Methodological Development,” February 26, 2004.

**S. Panchapakesan**, Southern Illinois University, “A Nonparametric Procedure Based on Early Failures for Selecting the Best Population Using a Test for Equality,” March 4, 2004.

## 2003-04 Traveling Speakers

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**John Storey**, University of Washington, Seattle, “Identifying Differentially Expressed Genes in DNA Microarray Experiments,” March 23, 2004.

**Vassilis Polimenis**, University of California Riverside, “A Simple Model of Market Liquidity and Depth,” March 26, 2004.

**Chuanhai Liu**, Texas A&M University and Bell Laboratories, Lucent Technologies, “Statistical Quasi-Newton: A New Look at Least Change,” April 1, 2004.

**Michael Gribskov**, University of California, San Diego, “Computational Exploration of the Plant Konome,” April 6, 2004.

**Jonathan R. Stroud**, Wharton School, University of Pennsylvania, “Optimal Filtering of Jump-Diffusions: Extracting Latent States from Asset Prices,” April 9, 2004.

**Chittibabu Guda**, University of California, San Diego, “Developing Computational Tools to Enhance Biological Research,” April 13, 2004.

**Nan Laird**, Harvard School of Public Health, “Family Based Association Tests with Haplotypes,” April 15, 2004.

**Josef Teugels**, Katholieke Universiteit Leuven, Belgium, “Statistics of Extremes,” April 16, 2004.

**Christine Heitsch**, University of Wisconsin, Madison, “From Nucleotide Sequences to Secondary Structures, and Back Again,” April 20, 2004.

**James O. Berger**, Duke University, “Objective Prior Distributions in Multivariate Normal Settings,” May 14, 2004.

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## Department News

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### Of Special Note



**George McCabe** has been appointed as Associate Dean of Academic Affairs for the School of Science starting August 12, 2004. In his new role, George will oversee strategic hiring in the School-wide areas of Coalescence as well as lead efforts in recruitment, mentoring, retention, and engagement.



**Katy Simonsen** was the recipient of the School of Science Faculty Award for Outstanding Contributions to Undergraduate Teaching by an Assistant Professor.



## Department News (Cont.)

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### New Faculty 2004

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#### Professor William S. Cleveland Joins the Department of Statistics

The Purdue University Department of Statistics welcomes new faculty member **Professor William S. Cleveland**. He also holds a courtesy appointment with the Department of Computer Science. His current research interests include computer networking, data visualization, machine learning, data mining, statistical models and model building, and time series.

He has been involved in many projects requiring the mining, statistical analysis, and modeling of data from several fields including environmental science, customer opinion polling, visual perception, and computer networking. In the course of this work he has developed many new statistical models and methods, including visualization methods, that are widely used in engineering, science, medicine, and business.

He has participated in the design and implementation of software for the trellis display framework for visualization that he and colleagues developed, and for the loess approach to nonparametric function estimation that he introduced into statistics and machine learning. The software is now a part of many commercial systems.



Professor Cleveland holds a Ph.D. from Yale University and is a Fellow of the American Statistical Association, Institute of Mathematical Statistics, AAAS and is an elected member of the International Statistical Institute. In 1996, he was chosen for

Statistician of the Year by the Chicago Chapter of the American Statistical Association. In 2002, he was selected as a Highly Cited Researcher by the American Society for Information Science & Technology in the newly formed mathematics category.

Professor Cleveland has published over 120 papers in a wide range of scientific journals, refereed proceedings and books. His two books *The Elements of Graphing Data* (1985, 1994)

and *Visualizing Data* (1993) have been reviewed in dozens of journals.

Professor Cleveland comes to Purdue University from Bell Labs in Murray Hill, New Jersey, where he held a position as a Distinguished Member of the Technical Staff in the Statistics Research Department.

## Department News (cont.)

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### New Faculty 2004

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#### *New Faculty*

##### *Assistant Professor of Statistics*

**Bowei Xi** - Dr. Xi received her Ph.D. in Statistics in 2004 from the University of Michigan. Her research interests include: Internet tomography, combinatorial and global optimization, computer networking.

#### *Visiting Faculty*

##### *Visiting Professor*

**Eitan Greenshtein** - Dr. Greenshtein received his Ph.D. in Statistics in 1990 from Cornell University and is currently at Haifa University, Haifa, Israel. His research interests include: Decision theory, sequential analysis, comparison of experiments, model/variable-selection in particular in high dimensions.

##### *Visiting Assistant Professor*

**Bhramar Mukherjee** - Dr. Mukherjee received her Ph.D. in Statistics from Purdue University and is from the University of Florida, Gainesville, Florida. Her research interests include: Optimal design of experiments, repeated measures design, statistical inference.

##### *Visiting Scholar*

**Sylvie Brouder** - Dr. Brouder is in the Faculty Program of Study in a Second Discipline in the Department of Statistics. She is from the Department of Agronomy here at Purdue.

##### *Visiting Scholar*

**Ginta Uzulina** - Dr. Uzulina is visiting Purdue from the Ministry of Agriculture of the Republic of Latvia. Her research interests are mainly in Decision Theory and she is doing research in the development of the statistical models for optimization of governmental decisions for theory and practice.

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## Bioinformatics Seminar Series

*by Rebecca Doerge*

*Professor of Statistics and Agronomy*



This was an extremely busy year for Bioinformatics, both in Statistics and at Purdue University. The Department of Statistics continues to excel in Statistical Genetics and Genomics, as well as Bioinformatics.

The Bioinformatics Seminar Series ([www.stat.purdue.edu](http://www.stat.purdue.edu)) hosted the

Bioinformatics COALESCE (Cooperative Areas Linking and Extending Science) faculty interview seminars this year. We are happy to report that Dr. Michael Gribskov from University of San Diego, San Diego Supercomputer Center and Department of Biology, La Jolla, California has accepted a position in Biology as Professor, and will join Purdue Fall 2004. Dr. Gribskov is well known in Bioinformatics and is currently President of the International Society of Computational Biology.

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## Department News (cont.)

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In addition, Ms. Dachuang Cao completed her Ph.D. research in the area of quantitative trait locus (QTL) analysis in polyploids, and has accepted a position at Eli Lilly in Indianapolis. We anticipate at

least three additional dissertations to be completed in the areas of Statistical Genetics/Genomics and Bioinformatics in the next year.

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### Computational Finance

*by Seongjoo Song*  
*Assistant Professor*



**Frederi Viens** continued as coordinator of Purdue University's Computational Finance program, in which the Statistics Department is a leading component. In the Spring of 2004, **Professor Viens** was on sabbatical, so **Seongjoo Song** took his place. The enrollment in the

Master's program in Statistics with a Computational Finance Specialization was 11 in 2003-2004. In the Department of Mathematics, there were three new students and the enrollment increased up to nine in Fall 2004. **Professor Song** organized the weekly

Computational Finance Seminar, which gathered a wide variety of invited speakers from mathematics, statistics, engineering, finance and economics. Many of the speakers were from Purdue University this year, including several graduate students from statistics and mathematics. There were two speakers from outside of Purdue: **Vassilis Polimenis**, University of California Riverside, and **Jonathan R. Stroud**, University of Pennsylvania. The Purdue Minisymposium on Financial Mathematics, launched in April 2003 will continue with the second edition planned for the Spring of 2005. Further details on this will appear later in the Computational Finance program home page.

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### Computing Facilities

*by Doug Crabill*  
*Computer Systems Administrator*



A host of computer facilities changes have taken place or are currently in the works. Many of our Windows servers have seen hardware upgrades, including our new fileserver with SCSI RAID running Windows 2003. Our domain controllers have seen hardware upgrades and

new SMS and SQL servers have been purchased to simplify the configuration and administration of software on our Windows desktops and laptops. All our Windows servers have been upgraded to Gigabit ethernet network connections to maximize throughput to our client machines. Our lab computers received another upgrade with even more lab PC's being installed to handle the demand. New webserver hardware and several other UNIX servers have been added as well.

## Department News (cont.)

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### STATCOM

[http://www.stat.purdue.edu/external\\_relations/statcom/](http://www.stat.purdue.edu/external_relations/statcom/)

*by John Stevens*

*Director of STATCOM*



**Statistics in the Community (STATCOM)** is a volunteer organization within the Department of Statistics that provides statistical consulting free of charge to local non-profit and government groups while maintaining client confidentiality. Organized and run by graduate students in the

department, STATCOM provides opportunities for professional growth while serving the local community and representing Purdue University. Approximately 25 students are involved in STATCOM.

The 2003-2004 academic year saw considerable activity for the group. The organizational structure was formalized and a handbook written to outline the responsibilities of the director, associate director, team leaders, and advisor. As director of STATCOM, **Craig Johnson** contacted several local groups to identify and develop projects. As advisor, **Regina Becker** provided several suggestions on possible clients and encouragement on active clients.

One of these projects, the Sagamore Parkway Task Force, received local media coverage, and our consultants were quoted and referred to in several newspaper articles. The Task Force was appointed by West Lafayette Mayor, **Sonja Margerum**, to develop a plan for the revitalization of the areas surrounding the Sagamore Parkway West, which doubles as U.S. Highway 52 from Soldiers Home Road to Win Hentschel Boulevard in West

Lafayette. The Chair of the Task Force, **Joe Hornett**, contacted STATCOM to request assistance with the design and analysis of a survey to assess the opinions and attitudes of city residents on matters ranging from the placement of crosswalks to the types of new businesses desired in the city. The STATCOM team provided several hours of consulting, culminating in two presentations and written reports to the Task Force, one for the resident survey and another for a survey of local business owners. The Task Force was very appreciative of the efforts by the STATCOM consultants and incorporated the STATCOM reports in their recommendations to the Mayor.

Another recently completed project involved providing feedback on a survey to be conducted by a local organization. This nonprofit organization provides services to its clients and had been conducting an annual client survey for many years. The STATCOM consultants identified methods to improve the survey and provided the organization with a written report detailing the key points of survey design and sampling, and the organization was appreciative as they looked to improve the manner in which their survey was conducted.

Schools continue to provide a wealth of projects for the STATCOM consultants. For example, one STATCOM team assisted a local school administrator in identifying trends in standardized test scores. The administrator was interested in using these results to improve school-wide performance.



## Department News (cont.)

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One current project involves a local library that is interested in characterizing checkout patterns of related books and identifying types of books most popular among various population subgroups to develop marketing strategies to target those specific subgroups. Another project involves the county courts clerk, who is interested in determining whether adequate resources are allocated to each of the county courts for their respective workloads. A third ongoing project is looking at staff turnover rates at a local youth center.

STATCOM team leader **Jing Cheng** and current director **John Stevens** presented a poster in the consulting poster session at the 2004 Joint Statistical Meetings (JSM) in Toronto. The poster is titled "A Student-Run Consulting Program Providing Community Service". It is anticipated that this poster will highlight the great achievements made by

Purdue's Department of Statistics and encourage statistics students and faculty at other universities to develop similar volunteer consulting services.

Experience with STATCOM gives graduate students valuable real-world experience in applying skills learned in the classroom. At the same time, consultants contribute to the community and develop better communication and time-management skills that will serve them well in their future careers. The members of STATCOM are grateful for the support and encouragement received from the Department and University, including funds for copies and refreshments from the Department, and a grant from the University's Office of Engagement to purchase a second laptop. These resources help make STATCOM a rewarding and enjoyable experience for the students involved while providing professional consulting to local community organizations.

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### Weddings

**Mike Morrow (M.S., 1991)** and Rebekah Dotson were married January 24, 2004.

**Gayla Hobbs (M.S., 2004; Current Ph.D. Student)** and Josh Olbricht were married July 12, 2004.

### New Arrivals

**Olga Korosteleva (M.S., 1999; Ph.D., 2000)** and her husband, Sergey Lototsky, are very proud of their son, Nicholas Serge Lototsky, who was born January 24, 2004.

Joseph Edwin Hatfield made his appearance on February 29, 2004. His parents, **Jason Hatfield (Current Ph.D. Student)** and Sarah, couldn't be any happier.

**Mik Black (B.S., 1996; M.S., 2000; Ph.D. 2002)** and his wife, Mel, are the proud and happy parents of Liam Ernest Mexted Black born April 8, 2004.

**John Stevens (M.S., 2002; Current Ph.D. Student)** and his wife, Heather, and daughter, Emily, welcomed Alexa Belle into their family April 15, 2004.

**Joan Brenneman (Limited Term Lecturer)** and her husband, Wes, daughter, Frances, and son, Luke, are proud of the new member in their family. Lois was born on the 4th of July.

Braeden Michael Morrow was born July 21, 2004. His proud parents are **Mike Morrow (M.S., 1991)** and Rebekah.

## Department News (cont.)

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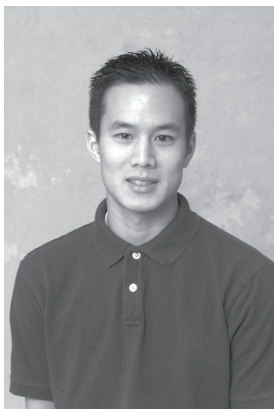
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### New Faces in the Department



There have been several personnel changes with the departmental computer staff. Our webmaster, **Leslie Arvin**, accepted a position with Information Technology at Purdue and has been replaced by **Cheryl Crabill**. **Cheryl** has developed a new look and feel for our web page that debuted at the start of the fall semester.

**Bente Fein** is our new Director of Development. She comes to Purdue from Alpha Sigma Alpha Foundation in Indianapolis, where she had been the Director of Development since 2001. She holds an M.A. in Philanthropic Studies from the Indiana University Center on Philanthropy (2003). She received a B.S. in Environmental Design and a Bachelor of Urban Planning and Development from Ball State University in 1998.



**My Truong**, a student employee of the department for the last four years, has accepted a newly created permanent position with the department as a Computer Systems Specialist. **My** will be primarily focusing on Windows administration, with **Doug Crabill** primarily focusing on UNIX administration, although there will be significant overlap with their duties.

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### Deaths

Shu-Jing, the wife of **D.-Y. Huang (Ph.D., 1974)** passed away April 26, 2004 after a period of illness. If you would like to send him a message, you can do so to [stat1009@mails.fju-edu.tw](mailto:stat1009@mails.fju-edu.tw).

### Job Search Network

If you have job information that you would like to include in our web site, please e-mail the job announcement to [stat-jobs@stat.purdue.edu](mailto:stat-jobs@stat.purdue.edu).

# Memorial Lectures

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## Myra Samuels Lecture



The 2004 *Myra Samuels Lecture* was presented on Thursday, April 15, 2004 by **Professor Nan Laird**, Department of Biostatistics, Harvard School of Public Health, “Family Based Association Tests.” The lectures were founded in memory of Dr. Myra Samuels who worked for many years in the Statistics Department and was an Associate Professor in Veterinary Pathobiology at the time of her death. The Myra Samuels Biostatistics Fund provides support for these lectures.

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## K. C. S. Pillai Memorial Lecture



The 2004 *K. C. S. Pillai Memorial Lecture* was presented on May 14, 2004 by **Professor James O. Berger**, The Arts and Sciences Professor of Statistics, Institute of Statistics and Decision Sciences, Duke University, and Director, Statistical and Applied Mathematical Sciences Institute. The title was “Objective Prior Distributions in Multivariate Normal Settings.”

The lecture is in memory of Professor K. C. S. Pillai who joined the Purdue faculty as Professor of Statistics and Mathematics in 1962. Previously he was a Senior Statistical Advisor for the United Nations. In this capacity he founded the Statistical Center at the University of Philippines.

Professor Pillai’s chief contributions to statistics were in the field of multivariate statistical analysis. His leadership in statistical research (more than 80 published papers) was recognized by his being named a Fellow of both the American Statistical Association and the Institute of Mathematical Statistics.

# Student News

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## I. W. Burr Award

The I. W. Burr Award is named for Professor Irving W. Burr who served on the Purdue faculty from 1941 until his retirement in 1974. He was a leading expert in quality control and industrial statistics. His text *Engineering Statistics and Quality Control* (McGraw-Hill, 1953) was well-known, and he was active as a consultant to business and industry. Professor Burr's scholarly work centered on statistical process control and distribution theory, where the Burr distributions are named for him. He was elected a fellow of both the American Statistical Association and the Institute of Mathematical Statistics. Professor Burr was one of the faculty whose work and reputation helped transform Purdue from a regional college to a national research university. The I. W. Burr award was established in 1974.

The student receiving this award should have completed or nearly completed the Ph.D. in statistics. The criteria for selection are: 1) Promise of contribution to the profession as evidenced by academic excellence in courses and exams and by the quality of the thesis research and 2) Excellence in teaching or consulting while at Purdue.

The co-recipients of the 2004 I. W. Burr award were **Dachuang Cao** and **Zhen Jiang**, and the award was presented by Dean Jeffrey Vitter in a ceremony on April 23, 2004.



*Dean Vitter and Dachuang Cao*

Dachuang Cao was born in Chengdu, Sichuan, China. She received her B.S. in Mathematics in 1996 from Central China Normal University; M.S. in Mathematical Statistics in 1999 from Peking University; M.S. in Applied Statistics in 2001 at Purdue University and received her Ph.D. in Statistics in May 2004 from Purdue University. She entered Purdue University in the Fall of 1999. Her areas of research are in Statistical Genetics and Bayesian Modeling. She enjoys watching movies, reading and sports (both playing and watching). Dachuang is a member of the American Statistical Association (ASA), Institute of Mathematical Statistics (IMS), and the Eastern North American Region of the International Biometrics Society (ENAR). Her major professors were **Dr. Rebecca W. Doerge** and **Dr. Bruce A. Craig**.

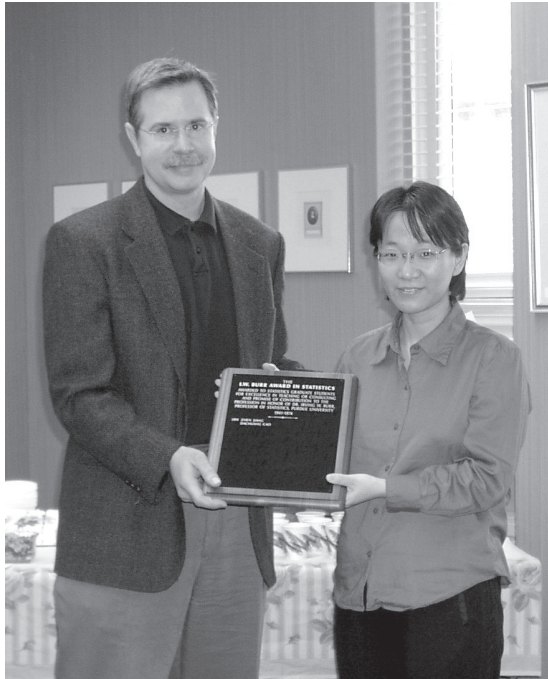


## Student News (cont.)

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### I. W. Burr Award Continued



Zhen Jiang was born in Tianjin, People's Republic of China. She received her B.S. in 1999 from the University of Science and Technology of China, majoring in Computer Science. In May 2002 Zhen received her M.S. from Purdue University in Mathematical Statistics. Her hobbies are badminton, swimming and reading. Zhen is a member of the American Statistical Association and the Institute of Mathematical Statistics. She received her Ph.D. in Statistics in August 2004, with her research area being in Applied Statistics. Her major professor was **Dr. George McCabe**.

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### V. L. Anderson Scholarship and School of Science Outstanding Achievement Award



The V. L. Anderson Scholarship is awarded to an undergraduate student who shows promise of contributing to statistics and its applications. The scholarship is in honor of Virgil Anderson who retired from the Department of Statistics in December, 1986, after nearly 36 years. **Bo Li** was the recipient of the 2004 V. L. Anderson Scholarship presented by Dean Jeffrey Vitter.

Bo was born in China. She received her Associate Degree from Chengdu University of Science and Technology in China, 1991; Master degree (MBA) from Sichuan University in China, 2001. Bo entered Purdue University in January 2002 where she is majoring in Actuarial Science. Her hobbies are playing tennis, singing, and hiking. She is a member of the Actuarial Club here at Purdue University. She expects to graduate in December 2004.

## Student News (cont.)

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



This award is in honor of Louis J. Cote who retired from the Department of Statistics in June of 1991. The student receiving this award will obtain an M.S. in applied statistics. The criteria for selection are the qualities required of an applied statistician: 1) Technical skill as evidenced by course performance, faculty evaluation, and performance on the final M.S. Examination and 2) Skill in consulting and communication, normally evidenced by excellence in supervised consulting or, secondarily, in teaching.

Dean Jeffrey Vitter presented the 2004 L. J. Cote M. S. Excellence in Statistics award to **Sylvie Mrug**. Sylvie was born in Bilina, Czech Republic. She received her MA in Clinical Psychology in 1998 at Charles University in Prague, Czech Republic; MS in Clinical Psychology at Purdue, 2001. Sylvie entered into the Ph.D. program in Psychology at Purdue University in Fall 1999. She enjoys music and playing various instruments. She is a member of the American Psychological Association. In Fall 2001, Sylvie joined the Department of Statistics, as a dual degree student and received her M.S. in Applied Statistics May 2004. **Dr. Rebecca Doerge** was her major professor.

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### Outstanding Classroom Teaching by a Teaching Assistant



Teaching Assistants contribute substantially to the teaching mission of the Department of Statistics, and their classroom performance is important to the quality of its service to students. The faculty of the Department has therefore established an annual award to recognize service to the Department and to students through outstanding classroom teaching of Statistics by a Teaching Assistant.

The award is presented once a year. It may be awarded to any Statistics Department Teaching Assistant who has held classroom teaching responsibilities in a Statistics course during at least one of the two semesters that include and precede the semester in which the award is made. The award is intended to recognize excellent performance in a specific classroom teaching assignment during this two-semester period. An individual may receive the award twice, but not more often.

The Spring 2004 award was presented by Dean Jeffrey Vitter to **Scott Diehl**. Scott was born in Warren Ohio. He received his B.S. in Mathematics in 2002 at Kent State University. He entered Purdue University in August 2002 and received his M.S. in Statistics in May 2004. His area of specialization is Computational Finance. Scott is a member of PRMIA (Risk Management) and IAFE (Financial Engineering). **Professor Frederi Viens** was his major professor.

## Student News (cont.)

### Glen E. Baxter Award

The Glen E. Baxter Memorial Fund was established in 1983 by family and friends of Professor Baxter shortly after the death of this gifted teacher-scholar. The annual proceeds from the fund are used to award scholarships to honor undergraduate students who have demonstrated excellence in mathematics. The recipients of the award are selected by a committee of professors from the Department of Mathematics and the Department of Statistics.

Both of these young scholars are following programs of study that lead to a baccalaureate degree in Mathematics, both have made excellent use of the opportunities that the University has made available to them, and both have been accorded many academic honors, including, most recently, election to Phi Beta Kappa, as Juniors, a signal honor.

**Jason's** plan of study includes three of the four courses upon which the Preliminary Examinations for the Ph.D. in Mathematics are based, and leads to an Honors degree in each of Mathematics, Statistics, and Actuarial Science. Jason has served the Computer science department as an Undergraduate Teaching Assistant; he was a member of the 2003 Putnam Competition Team; and he is a member of the Actuary Club, the Mathematics Club, and the Economics Club. He has been

awarded the Arthur Rosenthal Mathematics Scholarship, the C. W. & Kathryn E. Brown Science Scholarship, and the Twenty-First Century Scholarship. Jason's longer-range academic goal is to achieve doctoral degrees in both Mathematics and Finance.

**Damir** began taking upper-division Mathematics courses as a Freshman, and has continued to study the best courses that the institution has to offer. His plan of study includes several graduate courses and

leads to a baccalaureate degree in Honors Mathematics. He has been a participant in several Research-for-Undergraduates programs, one of which, under the direction of Professors Eric J. Hall and Omar De La Cruz, has resulted in Damir's presentation, at the 13th Annual Argonne Symposium for Undergraduates in Science, Engineering and Mathematics, "On two new notions of finiteness."

He organized and trained the team for the 2002 Mathematical Association of America Indiana Collegiate Mathematics Competition, for the Mathematics Club, of which organization he is an officer. His many honors include the Outstanding Achievement Award in Mathematics, the Barry M. Goldwater Scholarship, and the Jerison Memorial Award in Analysis. Damir, too, plans to do graduate work in Mathematics leading to a doctorate and a career as a professional mathematician.



*The 2004 recipients of the Glen E. Baxter Award are Jason Allen Anema (left) and Damir Dzhafarov (right), seen above.*



## Student News (cont.)

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### Statistics in the Community (STATCOM) Award

STATCOM is a community outreach program provided to the greater Lafayette area by graduate students in the Department of Statistics at Purdue University. The program offers free of charge to non-profit community organizations the expertise of statistics graduate students in the areas of data collection, organization, and interpretation.

STATCOM was born out of a desire to enhance the existing partnership between Purdue University and the community at large, thereby impacting the quality of life in the area in a positive way.

Potential recipients of the service include organizations include: schools, some government agencies, and Health Centers

The group was founded in 2002 by **Nels Grevstad (M.S., 2001; P.h.D., 2003)**. STATCOM received a \$1500 grant from the Student Grant Program for Community Service, administered through Purdue's Office of Engagement. Currently there are 25 graduate student consultants involved in the program.



The Co-Winners of the STATCOM award were **Craig Johnson** and **John Stevens**. The award was presented by Dean Jeffrey Vitter.

Craig was born in Salt Lake City, UT. He received a B.A. in Mathematics at Utah State University in 1995; M.S. in Mathematics at the University of Utah; M.S. in Applied Statistics in 2003. He joined the Department in the Fall of 2001. His areas of research are in Measurement Error Models and Human Protein Requirements. Craig enjoys cycling, camping, hiking, and family

history research. He belongs to the American Statistical Association, Institute of Mathematical Statistics, and the American Society for Quality. Craig was also a former member of the Mathematical Association of America and the American Mathematical Association of Two-Year Colleges. His Ph.D. degree date of graduation from Purdue was August 2004 in Statistics and **Dr. George McCabe** was his major professor.

John was born in Logan, UT. He received his B.A. in Mathematics in 2000 at Utah State University and a M.S. in Mathematical Statistics in 2002 at Purdue University. He entered the Ph.D. Program in Fall 2000. His areas of research are in Statistical Genomics, Meta-Analysis and Bioinformatics. John enjoys spending time with his family, reading, music, gardening and Xbox. He belongs to the American Statistical Association and the Mathematical Association of America. He expects to receive his Ph.D. in May 2005 and **Dr. Rebecca Doerge** is his major professor.





## Student News (cont.)

### Actuarial Science Awards

The Actuarial Science Awards are funded by the Lincoln Financial Group, the Trustmark Corporation, Towers Perrin Insurance, CIGNA Insurance, and alumni donations. They are awarded to outstanding Juniors, Sophomores and Freshmen on the basis of academic performance, actuarial exams passed, and extracurricular activities.

Actuarial Science is an undergraduate program jointly administered by the Department of Statistics and the Department of Mathematics. The Director is **Richard Penney**, Professor of Mathematics. The following

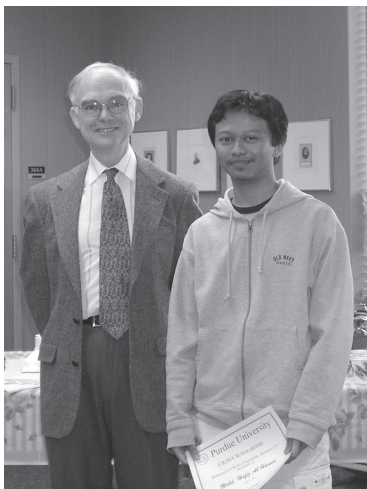


*Richard Penny and Jenni Prior*

students were awarded scholarships this year: **Jenni Prior**, of Lafayette, Indiana, Senior, with expected graduation December 2004, *Lincoln Scholarship*; **Sebastian Kleber**, Ft. Wayne, Indiana, Senior with expected graduation May, 2004, *Towers-Perrin Scholarship*; **Mohd Hafiz Ab Hamid**, West Lafayette, Indiana, Sophomore, **CIGNA Scholarship**.



*Richard Penny and Sebastian Kleber*



*Richard Penny and Mohd Hafiz Ab Hamid*

#### **CIGNA Exam Awards Spring 2003 (Awarded September 2003):**

**Jenni Prior**, West Lafayette, Indiana; **Neal Drasga**, Crown Point, Indiana; **Sebastian Cleber**, Ft. Wayne, Indiana; **Evi Laksana**, Yogyakarta, Indonesia; **Uzair Muhammad**, Longview, Texas; **Jeanette Roel**, Indianapolis, Indiana; **Vikas Shah**, Munster, Indiana; **Ashlee Shellenbarger**, Colorado Springs, Colorado; **Kathleen Ward**, Carmel, Indiana; **Zachary White**, Indianapolis, Indiana.

#### **CIGNA Exam Awards Fall 2003 (Awarded January 2004):**

**Laura Hodge**, Terre Haute, Indiana; **Jacqueline King**, Santa Fe, California; **Sebastian Kleber**, Ft. Wayne, Indiana; **Hsiao-Fan Tang**, Arlington, Texas; **Wendy Thompson**, Highland, Indiana.

## Student News (cont.)

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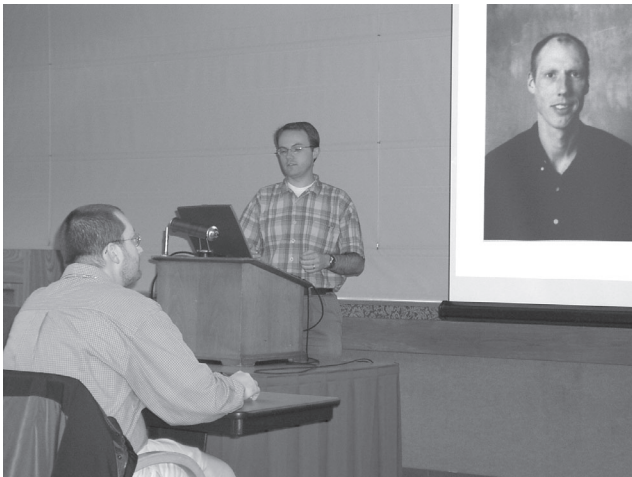
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### School of Science Outstanding Senior Award

The 2003 winner of the School of Science Outstanding Achievement Award for Statistics is **Haizhi Lin**. Haizhi is from Beijing, P. R. China. He is a member of the Mathematics club. His honors and awards include the Lincoln National Life Scholarship, Semester Honors and the Dean's List. He continues his education in graduate school.

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**John Stevens**, Director of Statistics in the Community (STATCOM) gave a presentation at Purdue's Engagement Forum on April 20, 2004. The purpose of the Engagement Forum is to highlight the many departments and organizations at Purdue that reach out to the community to improve the lives of Indiana citizens.

On the screen in the background, you can see **Nels Grevstad (M.S., 2001; Ph.D. 2003)**, the founder of STATCOM.

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**Olga Vitek** is one of two recipients who were awarded a Purdue Graduate Dissertation Fellowship for the 2004-2005 year by the Graduate School. This fellowship was established to provide support to outstanding Ph.D. Candidates in their final year of writing. It is expected that the doctoral degree will be awarded at the conclusion of the fellowship year. Doctoral candidates who have completed their coursework, passed their qualifying examinations, and have an approved dissertation proposal are eligible to apply.

## Student News (cont.)

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### Teaching Assistantships and Fellowships for 2003-2004

The following new students for 2004-2005 have been awarded teaching assistantships and fellowships in the Department of Statistics:

**Tilman Ripp Achberger** (St. Olaf College, Minnesota), **Salman Sohail Chang** (Wabash College, Indiana), **Timothy Joseph Clough** (John A. Logan College, Illinois), **Joanne Daggy** (Ball State University, Indiana), **Mahua DasGupta** (Indian Institute of Technology Kharag, India), **Saptarshi Guha** (Indian Statistical Institute, India), **Rebecca Katherine Kendall** (Purdue University, Indiana), **Paul Brandon Kidwell** (Purdue University, Indiana), **Andrew Lewandowski** (Georgia State University, Georgia), **Jinguang Li** (University of Science & Technology, China), **Shraddha Mehta** (St. Olaf College, Minnesota), **Cherie Ann Ochsenfeld** (University of San Diego, California), **John Adam Reeger** (Illinois Wesleyan University, Illinois), **Gang Shen** (Worcester Polytechnic Institute, Maine), **Dimitar Veselinov Vangelov** (Beloit College, Wisconsin), **Patricia Yuri Yoshida** (University of Washington, Washington), **Lingmin Zeng** (Purdue University, Indiana), **Jianchun Zhang** (National University of Singapore), **Yang Zhao** (Beijing University, China), **Cheng Zheng** (University of California, Irvine, California) and **Xinge Zheng** (Fudan University).

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## Recent Graduates

### December 2003 Graduates

#### **Doctorates**

David Annis (Bruce A. Craig) *A New Statistical Model Combining Strength and Binary Choice with Application to Paired Comparison Problems*

#### **Bachelors**

Jeffrey Lee  
Eugene Lee  
Rachel Mize  
Nigel Thavasi

#### **Masters**

##### **Specialization in Applied Statistics**

Tadd Colver  
Tae-Eun Kim

#### **Masters**

##### **Specialization in Computational Finance**

Natalia Batalova



## Student News (cont.)

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### *May 2004 Graduates*

***Masters***  
***Specialization in Mathematical Statistics***

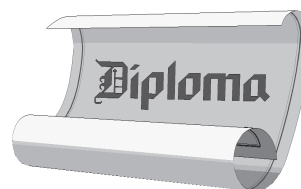
Jing Feng  
Jeffrey D. Wild  
Huiping Xu

***Masters***  
***Specialization in Computational Finance***

Scott Diehl  
Betsy Hughes  
Prasanth Karumanchi  
Meike Niederhausen  
Keith Portman  
Kun Ren

***Masters***  
***Specialization in Applied Statistics***

Tina Alexander  
Gayla Hobbs  
Deming Mi  
Sylvie Mrug  
Rochelle Remke  
Hua Shen  
Yong Wang



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### ***Doctorates***

Dachuang Cao (R. W. Doerge and B. A. Craig)  
*Quantitative Trait Locus Analysis in Polyploids*

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### ***August 2004 Graduates***

***Masters***  
***Specialization in Applied Statistics***

Yang Jiang

***Masters***  
***Specialization in Computational Finance***

Benjamin Tyner



## Student News (cont.)

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### August 2004 Graduates (cont.)

#### Doctorates

Arijit Chakrabarti (Jayanta K. Ghosh) *Model Selection for High Dimensional Problems with Application to Function Estimation*

Andrea Collevocchio (Burgess Davis) *Limit Theorems for Reinforced Random Walks on Trees*

Zhen Jiang (George McCabe) *Estimation of Parameters in Nonlinear Models with Dependent Data*

Craig Johnson (George McCabe) *Estimation of the Distribution of Protein Requirements in a Population*

Xiaoli Qu (Bruce A. Craig)

Yu Qin (Seongjoo Song) *A Study of Random Field Models in Fitting Unspecified Data Generating Processes: Theory and Applications*

Jeonggang Seo (Jayanta K. Ghosh) *Some Classical and Bayesian Nonparametric Regression Methods in a Longitudinal Marginal Model*

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#### Bachelors

Jacqueline Allen  
Juan Arroyo Yap  
Andrea Davenport  
Tiffany Droke  
Darci Eby  
Jacqueline King  
Sebastian Kleber  
Jennifer Kowall  
Brian Kowalski  
Evi Laksana  
Sara Lufkin  
Jennifer Mellott  
Jeanette Roell  
Vikas Shah  
Ashlee Shellenbarger

Wendy Thompson  
Kathleen Ward  
Mary Weise  
Zachary White  
Diana Winarto  
Shir Ying Yew  
Sheng-Kung



## Student News (cont.)

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### News from the Graduate Student Organization (GSO)

The Graduate Student Organization (GSO) had another busy year with regular Monday night seminars and an invited Departmental Colloquium speaker, as well as hosting the Spring Picnic.

The Monday evening seminars are in the spirit of connecting students and faculty through seminars and pizza.

Highlights of this year include talks given by the first year Vertical Integration of Research and Education in the Mathematical Sciences (VIGRE) Ph.D. students. **Johnna Anderson**, **David Anderson**, and **Jason Hatfield**, **Andreana Robertson** each gave a 15 minutes topic talk on a subject of interest. Their talks were terrific, and evidence of tremendous motivation and effort by our students. In another seminar **Professor R. W. Doerge** provided information on the “do’s and don’ts” of the job search and interview process that resulted in lively discussion among the students.



*Yun Wang, Ph.D. Student*

Each year the Statistics GSO hosts an invited Colloquium speaker. This year **Professor Jianqing Fan** from Princeton University was the honored guest. He spoke on, “A High-Dimensional Semilinear Model for Analysis of Microarray Data: Theoretical Exploration and Methodological Development.” With the continued interest and developments in Statistical Genetics and Genomics in the Department, this talk was indeed timely.



*Rochelle Remke, M.S. 2004*

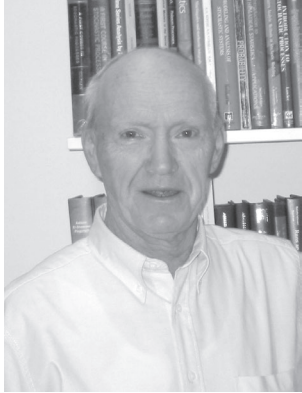
In keeping with tradition, the GSO hosted the Spring Picnic at Happy Hollow Park. A spirited softball and volleyball game provided the afternoon’s entertainment, and with the cooperation of the weather (which doesn’t always happen) the afternoon was a tremendous success even though at times the grill took on a life of its own!

## Alumni News

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### 2004 Distinguished Alumni Award



**Jozef Teugels (Ph.D. 1967, Statistics)** received the School of Science 2004 Distinguished Alumni Award in an April 2004 ceremony at Purdue University.

He is Professor of Statistics at the Katholieke Universiteit of Leuven, Belgium. His large body of distinguished published research focuses on probability, statistics and classical analysis and in different fields of application, ranging from insurance to environmetrics, extreme value theory, risk theory, renewal theory and categorical data analysis. Professor Teugels is president of the National Committee of Mathematics of Belgium, and was vice president of the International Statistical Institute from 2001 to 2003. He was the 1996 Belgian Francqui-chair at the Université Libre de Bruxelles, and a recipient of the 1999

Henri Willem Methorst Medal of the International Statistical Institute. In 2000, he received the Huesped Distinguido of the City of Guanajuato, Mexico.

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### 2004 Purdue Honorary Doctorate Degree



**James O. Berger** was awarded an honorary Doctorate of Science degree by Purdue University on May 15, 2004, in the graduation ceremony at the West Lafayette Campus. He is currently the Arts

and Sciences Professor of Statistics at Duke University, living in Durham, North Carolina. Born and raised in Minneapolis, Minnesota, Berger received his bachelor's, master's and doctorate degrees, all in mathematics, from Cornell University, finishing in 1974. He came immediately to Purdue in West Lafayette as a faculty member in the Department of Statistics, becoming an associate professor in 1976 and a full professor in 1980 and remaining here until 1997. At that time, he moved to his current position at Duke. He also is Director of the Statistical and Applied Mathematical Sciences Institute.

Berger was President of the Institute of Mathematical Statistics from 1995 to 1996, Chair of the Section on Bayesian Statistical Science of the American Statistical Association in 1995, and

*2004 Honorary Degree continued on page 26*

## Alumni News (cont.)

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**Alpha Camara (M.S., 1991)** continued his education at Purdue and received his Ph.D. in Epidemiology in June 1994. He is currently an assistant professor at the University of Conakry, Republic of Guinea (West Africa) focussing on statistical methods in medical research.

**Jason Stover (Ph.D., 2000)** has accepted a tenure-track position in the Department of Mathematics, Georgia College and State University in Milledgeville, Georgia.

The Section on Physical and Engineering Sciences (SPES) announces the results of its annual Outstanding Presentation competition for papers given at the 2003

Joint Statistical Meetings (JSM) in San Francisco. **Christopher Tong (M.S., 2002)** of the Merck & Co., Inc., received Runner-Up Outstanding Presentation Award for his SPES Contributed Paper presentation, "Quantitative Structure-Activity-Relationship Modeling Using Leo Breiman's Random Forest."

*Please let us know your accomplishments and activities. We would like to include you in our next newsletter!*

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## Gifts to the Department

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### *Special Thanks To Our Friends*

*The Department of Statistics would like to give a heartfelt "Thank You" to the following donors for their generous contributions from July 16, 2003 through June 30, 2004. We apologize in advance if we have omitted anyone or incorrectly spelled a name.*

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Robert K. Beideman Jr.  
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Thurman J. Brown Jr.  
Bruce A. and Jennifer Craig  
Anirban DasGupta  
Rebecca W. Doerge  
Kenneth W. Fischer  
Duncan K. H. and Mosuk Fong  
Nancy C. Hassett  
I-Chiau and Su-Yun Huang  
Tzu-Cheg and Pheng-Fan Kao  
George P. and Linda J. McCabe  
Robert A. and Marjorie E. McLean

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## Gifts to the Department (cont.)

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### *Myra Samuels Biostatistics Fund*

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Bruce A. and Jennifer Craig  
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David S. and Nancy K. Moore  
Jun Xie  
Yu Michael Zhu



If you would like to give to any of our funds, or if you are interested in planned gift, estate planning contact Bente Fein, Director of Advancement, School of Science at (765) 496-7052, by email at: [bfein@stat.purdue.edu](mailto:bfein@stat.purdue.edu) or through the web [http://www.science.purdue.edu/alumni\\_and\\_friends/giving/index.asp](http://www.science.purdue.edu/alumni_and_friends/giving/index.asp). You can also give on-line to the Statistics Department at <http://www.stat.purdue.edu>.

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## The 2003 Statistics Department Picnic



The 2003 Statistics Department Picnic at Ross Hills, West Lafayette, Indiana was held on Sunday, September 7, 2003. The picnic gave families of new students a chance to get to know the faculty and staff. **Bill Lucas**, husband of **Norma Lucas**, agreed to see that nobody went hungry. With a grill full of pork chops, chicken and hot dogs, our taste buds were completely satisfied by his cooking.

Some relaxing entertainment was provided by (L to R) **Brad Johnson** and **Nels Grevstad**.

## 2003(4) After Holiday Party

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The 2003(4) Statistics Department After Holiday Party was held on January 31, 2004, at the University Inn in Lafayette, Indiana. This year we decided to have an “After Holiday Party” since December is such a busy time for everyone. Having the party after the holidays enabled more people to come and have a good meal, relax and have fun with the Karaoke DJ. Once again it was a great success!

Above we hear the talent of some of our faculty and staff. To the right we observe the fine John Travolta performance of **John Stevens (M.S., 2002)**, Student Director of Statistics in the Community (STATCOM) while hoping the intense laughter doesn’t put his wife, Heather left, into early labor.



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### **2004 Honorary Degree continued from page 23**

President of the International Society for Bayesian Analysis during 2004. He has been involved with numerous editorial activities, including co-editorship of the *Annals of Statistics* during the period of 1998-2000, and has organized or participated in the organization of 28 conferences.

Among the awards and honors Berger has received are Guggenheim and Sloan Fellowships, the COPSS President’s Award in 1985, the Sigma Xi Research Award at Purdue for contribution of the year to science in 1993, election as foreign member of the

Spanish Real Academia de Ciencias in 2002, and election to the U.S. National Academy of Sciences in 2003.

Berger’s research has primarily been in Bayesian statistics, foundations of statistics, statistical decision theory, simulation, model selection, and various interdisciplinary areas of science and industry. He has supervised 30 Ph.D. dissertations, published more than 140 articles and has written or edited 13 books or special volumes.

## Department E-mail Addresses

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The Statistics Department Newsletter is published annually for alums and friends of the Statistics Department at Purdue University.

We welcome your comments and suggestions for future newsletters. Please send a fax to 765-494-0558, an e-mail to [seele@stat.purdue.edu](mailto:seele@stat.purdue.edu), call 765-494-5324 or write to:

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