Department of Statistics



NEWS

Purdue University

Summer 1997

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Calendar of Coming Events

1997 American Statistical Association (Joint Meetings) will be held in Anaheim, California, August 10-14, 1997. Purdue dinner at the meetings will be August 12 at The White House.

The Annual Department of Statistics picnic will be held Saturday, September 6, 1997 at Ross Hills, West Lafayette, Indiana.

The 1997 Holiday Party will be held at the Trails, West Lafayette, Indiana, on Wednesday, December 3.

6th Purdue International Symposium on Statistics will be June 17-June 23, 1998.

A Message from the Department Head



Dear Alums and Friends.

I hope that this second issue of the newsletter illustrates the life of the department for you and shows the range of activities that make up our calendar.

The department's strong reputation for research and the high profile of faculty in professional organizations has always allowed us to attract outstanding graduate students and this year is no exception. A reinvigorated Graduate Student Organization has helped to foster a sense of community. Based on the excellent record of our graduates, these students enjoy strong job prospects. See the Student News section to meet them.

The upcoming **Sixth Purdue Symposium to be held June 17-23, 1998,** continues a tradition of bringing together some of the best statistical

scholars in the world. This symposium also celebrates the 30th anniversary of the creation of the department as a separate academic unit. It will begin with the Workshops "Interfaces between Statistical Paradigms" and "Nutrition and Statistics", held simultaneously June 17-19, 1998. The conference "Statistical Decision Theory and Related Topics" will be held on June 19-21, 1998, and will include invited and contributed paper sessions. The Workshop "Statistical Genetics: An Interdisciplinary Future" will be held on June 21-23, 1998. For more information, see the department website or write or email the Chair, Shanti Gupta.

The Alumni News section is a delight to read for all of us as we catch up on the lives of our friends. Please send us information about yourself if you have not already done so. Give your old friends a chance to hear from you again.

> Best regards to you, Mary Ellen Bock

Purdue Professor to Lead Nation's Statisticians



David S.
Moore, the
Shanti S.
Gupta Distinguished
Professor of
Statistics at
Purdue, has
been elected
1998 President of the
American

Statistical Association. He serves as President-Elect in 1997 and as Past President in 1999.

The American Statistical Association, with over 18,000 members, is

the world's largest professional society for statisticians. ASA's members include statisticians working in government and the private sector, as well as academics. Founded in 1839, it is the second oldest professional association in the United States.

Professor Moore joined the Purdue faculty after receiving his Ph.D. from Cornell University in 1967. He has an extensive record of research in statistical theory, but is best known for his work in statistical educa-

tion. He has received both Purdue and national awards for teaching excellence, has written extensively on statistical education, and was content developer for several video series, including the 1989 Corporation for Public Broadcasting telecourse Against All Odds: Inside Statistics. Professor Moore has served as President of the International Association for Statistical Education and is currently a member of the National Research Council's Mathematical Sciences Education Board. *

Joint Statistical Meetings and Purdue Dinner

The 1996 Joint Statistical Meetings were held August 4-8, 1996, in Chicago. A Purdue dinner was held at the Avanzare Restaurant Tuesday, August 6, 1996. Approximately 30 of our faculty, current graduate students and alums attended. Some of our alums who participated were Marcey Abate, James Albert, Malwane Ananda, Roger Berger, L. Mark Berliner, Donna Brogan, Raymond J. Carroll, George Casella, Jeesen Chen, Ming-Hui Chen, Keith Crank, John Deely, Zhuoqiong He, Mong-Na L. Huang, Wen-Jang Huang, J. T. Gene Hwang, TaChen Liang, Kun-

Liang Lu, Barry K. Moser, Dongchu Sun, Julia Varshavsky, Brani Vidakovic and Keying Ye.

The 1997 Joint Statistical Meetings will be held August 10-14 in Anaheim, California. This year's Purdue dinner will be at **The White House**, **Anaheim**, **California**, **Tuesday**, **August 12**, **1997**. If you are interested in attending the dinner, please e-mail Norma Lucas at nlucas@stat.purdue.edu. We look forward to hearing from you. ❖



L-R: S. Samuels, R. Doerge, B. Craig, G. McCabe, M. E. Bock



L-R: J. Berger, A. Berger, K. Iwaki, S. Bayarri, J. Deely, A. Young

Workshop in Default Bayesian Statistical Methodology

The Workshop on Default Bayesian Statistical Methodology was held at Purdue from November 1-3, 1996. It was supported by the National Security Agency, the School of Science and the Department of Statistics, and was organized by Jim Berger and Shanti Gupta.

The participants included 25 local faculty and students, 32 researchers from elsewhere in the U.S. and 20 foreign researchers from 9 countries. Among the workshop participants were alumni Ming-Hui Chen, Dipak Dey, T. Ramalingham, Peter Mueller, Dongchu Sun, Brani Vidakovic and Ruoyng Yang.

The scientific program emphasized recent developments in research on default, or

M.-H. Chen, Worcester Polytechnic Institute.

automatic, methods of Bayesian analysis. Such methods allow the powerful Bayesian statistical machinery to be used without requiring subject elicitation of prior distributions. Recent developments on the interfaces between the Bayesian, likelihood, and frequentist paradigms were also presented. The overall atmosphere was very

lively, with frequent and lengthy discussion and debate.

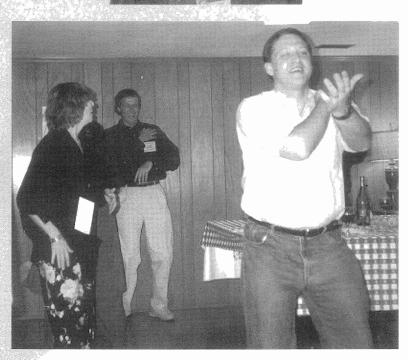
The social program for the

B. Vidakovic, Duke University.

Workshop was also lively! It began with a reception at the home of Shanti and Marianne Gupta on Friday, continued with a dinner at the home of Jim and Ann Berger on Saturday, and finished with a dinner at the home of Mary Ellen Bock and Decker Walker on Sunday.

Participants left declaring

that there is no place like a Purdue conference for good statistics and good fun! •



J. Mortera, J. Berger and E. George having some "good fun" dancing.

1996-97 Traveling Speakers

Below are a representative sample of the speakers who traveled to Purdue University.

William Strawderman, Rutgers University, "A Paradox Concerning Shrinkage Estimators: Should a Known Scale Parameter be Replaced by an Estimated Value in the Shrinkage Factor?, January 9, 1996.

Mike Morrow, Eastman Chemical, "Applied Statistics in Industry, Academia is Not Your Only Option If You Like to Teach", January 19, 1996.

Michael Woodroofe, University of Michigan, "Semiparametric Estimate of an Unknown Selection Function", January 18, 1996.

Francoise Seillier, University of North Carolina, "Detecting Linked Mutations in the HIV Genome", January 25, 1996.

Mihael Perman, University of Ljublijana, Slovenia, "On the Distribution of Brownian Areas", February 9, 1996.

Mei-Mei Zen, National Cheng-Kung University, "Comparison on the Care-Continuity of Patients - An Embedded Markov Chains Approach", February 13, 1996. **Brunero Liseo,** Università di Roma "La Sapienza", "Some Considerations about the Fieller-Creasy Problem, March 19, 1996.

Carmen Fernandez, Tilburg University, "Reference Priors in Non-Normal Location Problems", March 26, 1996.

Mark F. J. Steel, Tilburg University, "On Bayesian Modelling of Fat and Skewness", March 28, 1996.

Luis Pericchi, Universidad Simón Bolívar, Venezuela, "Variations Around the Theme of Bayes Factors", April 2, 1996.

J. T. Gene Hwang, Cornell University, "What Can We Do with a Nonidentifiable Model?", April 11, 1996.

Marilena Barbieri, University of Rome, "A Bayesian Approach to Outlier Detection in Time Series", April 16, 1996.

Dongchu Sun, University of Missouri-Columbia, "Bayesian Design for Dose Responses with Penalized Risk", April 25, 1996.

Daniel Del Waal, Orange Free State University, "Posterior Distribution of Measures of Association Between Predictors

of Horse Racing in Southern Africa", June 6, 1996.

Katsuaki Iwaki, Asia University, Tokyo, Japan, "Noninformative Priors for Model Selection", July 30, 1996.

Pieter Groenewald, University of the Orange Free State, "Bayesian Prediction of HIV Prevalence", August 9, 1996.

Stephen Portnoy, University of Illinois, "Computation of LAD Estimators: Faster Than LS for Large n", August 22, 1996.

T. N. Sriram, University of Georgia, "Fixed Precision Estimators of the Offspring Mean in Branching Processes with Immigration", August 21, 1996.

Xiao-Li Meng, University of Chicago, "AR(1), Bias, Correlation, Fisher, Fractional Derivative, James-Stein Estimator, and Wiener Process", August 29, 1996.

Chuanshu Ji, University of North Carolina at Chapel Hill, "Statistical Modelling of Microstructure in Materials Science", September 5, 1996.

Prem Goel, The Ohio State University, "Point Process Models for Fatique Crack

1996-97 Traveling Speakers (cont.)

Propagation: Hierarchical Bayesian Approach", September 12, 1996.

M. J. Bayarri, Universitat de Valencia, "Bayesian Analysis for Queueing Systems and Networks", September 17, 1996.

Mark Becker, University of Michigan, "Latent Class Marginal Models for Cross-Classifications of Counts", September 19, 1996.

J. L. Gastwirth, George Washington University, "Statistical Issues Arising in Equal Employment Cases", September 26, 1996.

Alexander Korostelev, Wayne State University, "Asymptotic Optimality in Nonparametrics Based on Large Deviations Probabilities", October 1, 1996.

Sandy Zabell, Northwestern University, "Characterizing Random Partitions", October 10, 1996.

G. Jogesh Babu, Pennsylvania State University, "Statistical Methodology for Large Astronomical Surveys", October 17, 1996.

Diane Fasel, President, The Bellwood Group, "Career

Opportunities for Statistics Graduates", October 21, 1996.

Brani Vidakovic, Duke University, "Some Recent Applications of Wavelets in Statistics", October 24, 1996.

H. B. Kemperman, Rutgers University, "On a New Type of Mutual Distance Between Finitely Many Probability Distributions", October 31, 1996.

Susie Bayarri, University of Valencia, "Measures of Surprise", November 5, 1996.

Michael S. Waterman, University of Southern California, "Statistical and Computational Aspects of Biological Database Searches", November 14, 1996.

Shili Lin, The Ohio State University, "Modelling Crossover Interference in Human Gene Mapping Using the Chi-Square Models", November 31, 1996.

Donald S. Berry, Duke University, "Bayesian Approaches to Problems with Multiplicities", December 5, 1996.

Barry Katz, Indiana University, "Demographic and Geographic Variation in the Rate of Knee Replacement", February 25, 1997.

Bernhard Flury, Indiana University and IUPUI, "Magic Dice", March 20, 1997.

Ben Boukai, Indiana University-Purdue University Indianapolis, "On Estimation of Population Pharmacokinetic Parameters", March 25, 1997.

Jaya Satagopan, Memorial Sloan-Kettering Cancer Center, "A Markov Chain Monte Carlo Approach to Detect a Quantitative Trait Loci", April 1, 1997.

Barbara Bailar, University of Chicago, "Sample Surveys and Statisticians", April 3, 1997.

Carl M. Harris, George Mason University, "Distribution Estimation Using Laplace Transforms", April 10, 1997.

Michael Lu, Abbott Laboratories, "Statistical Analysis for Immunoassay Studies", April 22, 1997.

Donald Richards, University of Virginia, "Algebraic Methods Towards Higher-Order Probability Inequalities", May 1, 1997.

Guy Nason, University of Bristol, "Classification of Biomedical time-series using the stationary wavelet packet transform", May 29, 1997.❖

Selected Faculty Activities

School of Science Award for Oustanding Contributions to Undergraduate Teaching



Rebecca Doerge is this year's recipient of the 1996-97 School of Science Faculty Award for Outstanding Contributions to Undergraduate Teaching. This award was created two years ago to recognize an Assistant Professor who has combined outstanding teaching with research excellence. She is pictured to the left with the Dean of the School of Science, Dean Harry Morrison.

Selected Invited Faculty Talks

Shanti S. Gupta gave a talk on "Empirical Bayes Simultaneous Selection Procedures for Comparing Normal Populations with a Standard" which was presented at the Fourth World Congress of the Bernoulli Society, Vienna, Austria, August 26, 1996. He also gave a talk on "On Recent Developments in Statistical Selection Theory: Nonparametric Empirical Bayes Approach" presented at the Workshop on Nonparametric Statistics and Related topics, Carleton University, Ottawa, Canada on May 5, 1997.

David Moore gave talks as the Annual Visitor of the South African Statistical Association workshops and Lecture in November 1996. He was the Buckingham scholar in residence at Miami (OH) University in September 1996.

Philip Protter gave an international address at the 4th World Congress of the Bernoulli Society in Vienna, Austria in August, 1996. In addition, he addressed the International Conference on Random Dynamical Systems, Bremen, Germany, in April, 1997. He was also an invited visitor to Humboldt University in Berlin (Germany) and in Rennes, France, the summer of 1996. He organized a Franco-American Probability meet-

ing in Princeton, March, 1997, funded by the National Science Foundation and Institut National de Recherche en Informatique et en Automatique (INRIA).

Professional Societies

James Berger has been appointed co-editor of the *Annals of Statistics* effective January 1, 1998.

Mary Ellen Bock has been nominated as Vice President of the American Statistical Association.

Anirban DasGupta was appointed a Co-Editor of Sankhya, and is now an Associate Editor of Journal of American Statistical Association and of Journal of Statistical Planning and Inference.

David Moore is a member of the Mathematical Sciences Education Board of the National Research Council, 1996 to 1999. He is also a member of the external review teams for the statistics departments at the University of Iowa (November 1996) and Harvard University (February 1997).

Philip Protter was made a Fellow of the IMS in August 1996.❖

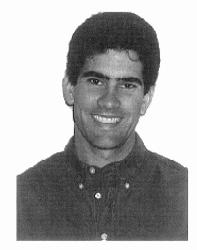
New and Visiting Faculty Members

New Faculty



Tainen "Tony" Cai joined the Statistics Department in August, 1996 as Assistant Professor of Statistics. He received his Ph.D. from Cornell University. He spent the last two years at the Wharton School of Business at the University of Pennsylvania. His current main research interests are nonparametric function estimation, decision theory and computational finance. Currently he is working on wavelet methods in nonparametric function estimation and the applications in finance. The goal of the research is to develop adaptive wavelet procedures which are theoretically optimal and computational efficient to recover functions (or images) of interest from directly or indirectly observed data. The procedures have interesting applications in

signal and image processing and in computational finance. Besides teaching and research, Tony enjoys sports. He is a fan of the Buffalo Bills, New York Yankees and the Chicago Bulls. Tony says, "Being at Purdue, I shall say: Go Boilers".



Bruce Craig joined the Statistics Department in August, 1996 as Assistant Professor of Statistics. He received his Ph.D. from University of Wisconsin, Madison. His research interests include Markov chain Monte Carlo methods, Hidden Markov modeling - especially in biometrical and biostatistical applications, Bayesian analysis, population modeling and sports statistics. Bruce's wife, Jennifer, is the head swim coach of the West Lafayette White Sharks. The Craig's are the proud parents of a seven month old daughter, Alexandra.

Visiting Faculty

Michael Dritschel, Visiting Associate Professor in our department, began his professional career in 1989 when he received his doctorate from the University of Virginia. His first position was a post-doc in mathematics at Purdue University and he has since worked at various universities in the U.S. and Europe. By training, Michael is a functional analyst, with his work divided between operator theory on spaces with indefinite metrics and model theory. The ecumenical taste in mathematics which has borne him along so far in his peripatetic career currently leads him to run the quantum probability seminar with Dr. Philip Protter. He wonders "can research in statistics be far off?"

While at Purdue, Michael teaches STAT 301T, Elementary Statistical Methods. To this end, he has developed software for implementing courses through the World Wide Web. The results, based on materials provided by Professor Germán Pliego and Aaron Daley, a graduate student in the department, may be viewed on the web at http://www.math.purdue.edu/~mad/classes/stat301t.html. He is

New and Visiting Faculty Members (cont.)

currently working on an "instructor-friendly" interface so that these tools can be used more easily by others.

Carmen Fernandez, was a Visiting Scholar from August 1996 to December 1996. She is from Universidad Autonoma de Madrid, Spain. Her research interests include: Prior and model robustness, non-informative priors, modelling and inference with skewed and fat tailed distributions, random effects models and applications of statistics to environmental science.

J. K. Ghosh who has been visiting us regularly since 1989, was back in Fall, 1996. In addition to teaching a course in probability (STAT 311) and Measure Theoretic Statistics (STAT 667), he worked on Bayesian semiparametrics, Bayesian density estimation, and non-informative priors in the infinite dimensional case. He is writing a monograph in this area. He also applied the Berger-Pericchi Intrinsic Bayes Factor to solve problems of geological mapping. Professor Ghosh spoke at the Default Bayes Workshop and attended a meeting on "Timeliness, Accuracy and Relevance" organized by the U.S. Bureau of Economic Analysis, EUROSTAT and the International Statistical Institute. The

attention to new problems in government statistics arising from what's called Globalization was initiated by him during his tenure as President of the International Statistical Institute from 1993-1995.

Heon Joo Kim, joined us in the fall of 1996 as a Visiting Scholar from the Republic of South Korea. Dr. Kim's visit is supported by a Postdoctoral Research fellowship from the Korean Science Foundation. She received her MS and Ph.D. degrees from Kyungpook National University in Daegu, Korea in 1991 and 1995 respectively. Her Ph.D. thesis advisor is Professor Joong K. Sohn, a Ph.D. graduate of Purdue's Department of Statistics, 1985, under the direction of Professor Shanti Gupta. After completing her Ph.D., Heon Joo was appointed lecturer in the Department of Statistics at Kyunpook National University in March, 1992. Her research interests are in Bayesian Inference, Statistical Decision Theory, and Statistical Computing.

Brunero Liseo, was a Visiting Assistant Professor from the University of Rome where he received his Ph.D. in 1992. He has been a visitor at Purdue several times since 1990 (1993, 1995, 1996). He is currently an Assistant Professor in Rome.

His interests in statisitics focuses on foundations of inference and interfaces between various approaches, elimination of nuisance parameters, Bayesian robustness and objective Bayesian analysis. He has done some applied work in Epidemiology. When Brunero is not thinking about statistics, he enjoys biking, playing soccer, cooking or during the "Purdue winter" reading a good novel.

Germán Pliego, came to the department as a Visiting Assistant Professor in August 1995 to continue his research in application of wavelets in statistics, which is among his areas of interest along with: experimental design, linear models, quality control and sampling. Germán received his MS degree in Statistics in 1989 and Ph.D. in 1991, under the direction of Dr. Mary Ellen Bock. While at Purdue, he held a Fulbright-LASPAU scholarship, served as a statistical consultant for the Purdue University Computing Center and was a research assistant for Krannert School of Business. In December 1991, he went to the Monterrey Institute of Technology (ITESM) Campus Toluca, México as full professor until October 1993. While at ITESM Campus Toluca, he served as Mathematics Department Director and Continuing

New and Visiting Faculty Members (cont.)

Education Center Director. In October 1993, Germán joined the State of México's Government team as Governor's inhouse consultant until July 1995.

Youngsook Son is a Visiting Scholar from Seoul National University, Korea. She received her Ph.D. in 1988 and is presently an Associate Professor at Chonnam National University, Kwangju, Korea. She came to Purdue in January 1996 and will be with us until August 1997. Her previous research topics were mainly on non-Gaussian time series analysis, but here she began Bayesian Statistics.

Mark Steel was a Visiting Scholar from August 1996 to December 1996. He is from CORE, Universite Catholique de Louvain, Louvain-la-Neuve, Belgium. His research interests include: Bayes econometrics and statistics, inference robustness, distribution theory, time series models, stochastic frontier models, noninformative priors and modelling with non-normal distributions.

Visitors in Spring 1997

John Deely is a Visiting Professor from Canterbury University in Christchurch, New Zealand. He has been at Canterbury University for 28 years, the last 23 as Chair of Statistics in the Department of Mathematics and Statistics. He received his Ph.D. in Statistics from Purdue University, being the first Ph.D. student under the supervision of Prof. Shanti Gupta. He received his BEE from Georgia Tech and

his M.S. in Mathematics from Purdue University. John's research interests focus on Bayesian methods for data analysis with emphasis on the appropriate use of partial prior information which is often available in practical applications. His teaching interests include using EXCEL for teaching statistical methods to non-statisticians and developing a Bayesian course for biostatistics. John enjoys bridge, traveling and listening to jazz.

Yuhai Wu is a Visiting Assistant Professor from Cornell University where he received his Ph.D. in May 1996. His research interests include non-parametric regression, density estimation, statistical computing, time series, survival analysis, wavelets and applied probability.

Department News

Job Search Network

The Department of Statistics is pleased to announce that a job search network has been established within the department. Professor Rebecca Doerge, Job Search Coordinator, has organized the effort which connects people searching for jobs in statistics with potential employ-

ers. National and international employment opportunities in industry, government, and academics are listed weekly. Current students and past graduates of the Department are invited to connect to the departmental job search information line via the www site: http://www.stat.purdue.edu/jobs/.

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. ��



Department News (cont.)

Computing Facilities

The Department of Statistics has been enjoying the use of recently purchased computing equipment. The two laptops used in conjunction with computer projectors in classrooms proved a great success. The six-modem modem pool performs well and is an improvement over using the campus modem pool. We are already making good use of the new HP Color LaserJet 5M printer by creating colorful pamphlets, fliers and transparencies. The twenty-two new color X terminals have performed well, although they have not yet been installed in the graduate student offices on the seventh and tenth floors as planned due to delays in the Purdue Telecom Project completing the new wiring in the Math Building. The four new Pentium Pro Windows NT PC's are nearly ready for general use. The new IBM RS/6000 39H server is still being configured as all departmental software is converted for use under AIX 4.1.4.

It is our hope that these improvements will reflect positively on the quality of education and research in the Department of Statistics.

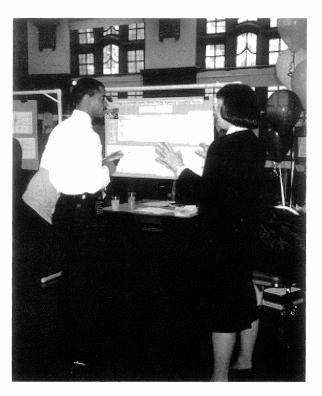
Department of Statistics Participates in Quality Improvement Initiative, Excellence 21

The Department of Statistics participated in the university wide quality improvement program, Excellence 21, in 1996. The results of its two projects were displayed at a poster session February 24, 1997.

Statistical Consulting Service ISO9002 Implementation

The first project was completed by the Statistical Consulting Service staff. The Statistical Consulting Service (SCS) provides the university community with free advice on problems involving the use of statistics. The goal of the SCS project was to establish a quality system for the service that addressed customer satisfaction, organizational clarity, training, record retention and corrective action. Establishment of such a quality system is a primary Total Quality Management (TQM) activity; it provides the structure for identification and resolution of future problems and ensures continuous improvement of the service.

The quality system model applied was ISO 9002. This internationally adopted model is widely used in manufacturing and service indus-



Regina Becker explains the SCS ISO9002 Implementation.

Department News (cont.)

tries and it is recognized as an excellent first step towards TQM. In the process of establishing a quality system, organizational relationships, consulting procedures, paperwork requirements and customer feedback were examined.

Internal procedures were reviewed and streamlined and resulted in improved service in many areas. For example, time from application for consulting to contact by a consultant was reduced from an average of 11.8 days in the first half of 1996 to 5.2 days in the last half of the year. An additional benefit of the project was that students involved in the SCS learned about the ISO 9000 quality system model and its applications in manufacturing and service industries.

STAT 511 Course Materials Project

STAT 511, *Statistical Methods*, is taught to approximately 100 students each semester. These students come from many different schools and represent some 30 different majors. It is an applied course where examples and applications play a major role in presentation of material and homework.

The goal of this project was to help STAT 511 instructors customize the course to meet the needs and expectations of each student in the section. Project results include a procedure whereby the Registrar's Office provides information about students' majors before the start of each semester. A library of examples and problems that apply to the majors that register for the class was developed. Instructors can access the data files in this library for examples and student projects relating to most fields represented in the student population. ��

New Faces in the Statistics Department



Doug Crabill started July 22, 1996 as the Computer Systems Administrator. Doug claims "Sometimes I think my car has a mind of its own. For weeks after starting in my position in the Statistics Department it would take me to the Computer Science parking garage when driving me to

work. CS was "home" for the last eight years so it thought that's where I should be. I'm happy to announce that both my car and I are now comfortably settled in our new home at the Department of Statistics. The faculty, staff and students have all made me feel quite welcome. As I look back on the year, I find myself truly enjoying the challenges posed by this position. My predecessor, Mark Senn, had told me I would be constantly busy. For some reason I thought he was exaggerating. Silly me."



Joanna Harkins joined the Statistics Department August 19, 1996. She is our new Information Processing Systems Operator III and Textbook Deputy.

See "Department News", page 16

Memorial Lectures

Myra Samuels Memorial Lecture

The 1997 Myra Samuels Memorial Lecture was presented on Wednesday, April 23. Dr. Bruce S. Weir, Professor of Statistics and Genetics at North Carolina State University gave the address "A Statistician in Court". 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. *

Myra Samuels Garden

The dedication ceremony for the Myra Samuels Garden was held Friday, April 25, 1997. The garden is located in the area between the Mathematical Sciences Building (which houses the Statistics Department) and University Street. The sidewalks and grass have been replaced with benches and a beautiful garden. •



Faculty E-mail Addresses

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Burgess Davis
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Student News

V. L. Anderson Scholarship



This 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 of 1986 after nearly 36 years.

The 1997 recipient of the V. L. Anderson Scholarship is **Mr. Tze Chao Ng**. Mr. Ng is working on his B. S. Degree in Actuarial Science with minors in Computer Science and Management and plans to graduate in December 1998.

Glen E. Baxter Award



The Glen E. Baxter Memorial Fund was established in 1983 by family and friends of Professor Baxter. The annual proceeds from the fund are used to award scholarships to honor undergraduate students who have dem-

onstrated excellence in mathematics. The recipients of the awards are selected by a committee of professors from the Departments of Mathematics and Statistics. The 1997 recipients of the Glen E. Baxter Award are Tze Chao Ng and Christen Cates.

I. W. Burr Award



This award was established in 1974 upon the retirement of the late Professor Irving W. Burr, an eminent statistician who taught at Purdue for nearly 35 years.

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 the student is at Purdue.

The 1997 I. W. Burr award was presented to **Dr. Cynthia Rodenberg** who received her Ph.D. degree in Statistics, December 1996.



Student News (cont.)

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



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 should be completing an Applied M.S. rather than a pre-Ph.D. program. The

criteria for selection are the qualities required of a working 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.

The recipient of the 1997 L. J. Cote M. S. Excellence in Statistics award was **Christine Emsley**. Christine received her M.S. degree in Applied Statistics in May, 1997. Upon graduation she began working with the Indiana University Medical School, Department of Biostatistics.

Outstanding Classroom Teaching by a Teaching Assistant

Teaching Assistants contribute substantially to the teaching mission of the Department of Statistics. The faculty of the department has established an annual award to recognize service to the department and to students through oustanding classroom teaching of Statistics by a Teaching Assistant.



The 1997 recipient is **Sarat Dass**. Mr. Dass was recognized for his excellent performance in STAT 225 in the Spring 1996 semester.

School of Science Outstanding Senior



The 1997 recipient of this award is Amy Schultz who came to Purdue in 1993 as a Beering Scholar, the most prestigious scholarship Purdue offers to undergraduates. She has been a very successful major in Actuarial Science holding

summer internships at Towers-Perrin in Pittsburgh and CIGNA in Hartford. Early in 1997, her career goal changed: she now expects to become a high school mathematics teacher. She plans to graduate next year with both the Actuarial Science degree and a background in education.

See "Student News", page 21

Student News (cont.)

New 1996-97 Graduate Students

This year, we decided to do something different for our new graduate students. We had a pizza party on August 11, 1996. It was a chance for the new students to get to know each other and some of the faculty. It was also an opportunity to give them a head start on learning about the department before their first official week on campus. A reception was also held in the Mathematics Library on August 16, 1996 where the new students were introduced to faculty and staff.



L-R: Haibin Shu, Nels Grevstad, Jingyuan Wang, Olga Korosteleva, Meng-Rong Lee, Leah Flury, Kara Goranson, Chunhua Zhao and Bhramar Mukherjee

New students not pictured: Messan Amewou-Atisso, Renee Jones, Shinjini Menon, Oumar Sy, Hua Wang, Xiaodong Lin and Gregory Porter. •

Department News (continued from page 12)

New Arrivals

The stork has visited the Statistics Department several times since August. Vivian Gu was born on August 1, 1996 to Professor Chong Gu and his wife Jing Li. Samantha Perez was born August 19, 1996 to Jose and Elena Perez. Jose is a current graduate student in the Department. Darbie Renee Ruff was born September 7, 1996 to Dr. Dustin Ruff and his wife Stacie. Dustin

graduated in May 1996. Professor Bruce Craig and his wife Jen are the proud parents of a daughter, Alexandra, who was born November 11, 1996. Mark Andrew Sellke was born January 23, 1997 to Professor Tom Sellke and his wife Sarah. Congratulations to you all!

August and December Graduates 1996

Doctorates

Cynthia Rodenberg (McCabe) Correcting for Verification Bians in ROC Estimation with Covariates.



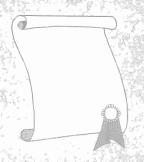
Chi-Mei Shui (Berger) Default Bayesian Analysis of Mixture Models.

N. D. Shyamalkumar (Berger) Contributions to Bayesian Nonparametric and Bayesian Robustness.

Suat Tanaydin (McCabe) Multivariate Quality Control Problems.

Hangping Zhang (McCabe and Ghosh) Some Contributions to Survival Analysis with Change-Point and Decreasing Hazard Rate.

Masters



Qiang Bai Xun Lin
Jiang Bo Chengyu Sun
Lin Chen Bin Wang
Tom Hodgson Chuanbo Zang

May 1997 Graduates

Masters

Markus Bachmann Georgios Chelidonis Aaron Daly Laura Di Domenico Christine Emsley Brian Lichy Michelle McNabb Karen Stechuchak

News from the Graduate Student Organization (GSO)

The Graduate Student Organization (GSO) in

Statistics was given a burst of energy this academic year (1996-1997). With the advice, encouragement and support of Professor Bock and Professor Doerge, four students were elected as representatives of the graduate students in Statistics. Leah Flury, Shinjini Menon, Roland Thorpe and Wen-Chi Tsai became the voices of the graduate students. Questions, advice and comments can be e-mailed to the GSO at statgso@stat.purdue.edu.

The Statistics GSO actively organized events including monthly seminars. The focus of these seminars was to give graduate students the opportunity to present their research, and to gain experience giving talks. On November 18th, graduate students Sarat Dass and Jaeyong Lee gave the first two talks on Bayesian statistics and hypothesis testing. The faculty was encouraged to attend these seminars to enjoy the free pizza, participate in the lively discussions and to add

constructive comments on the content and presentation of the seminars.

Thanks to the creative writing skills of graduate student, Tom Hodgson, members of the Statistics GSO made their first acting debut at the Departmental Holiday Dinner (December 4th). They performed a great skit, no one threw leftover chicken bones, and

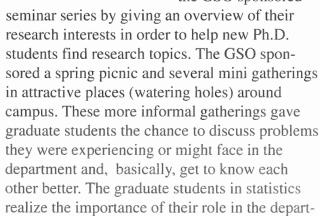
none of the participating students

received an F from a professor who might have

been victimized in the skit. Plans for next year are already in the making. Professors beware!

Spring plans of the GSO included asking current faculty members to participate in

the GSO sponsored





Jaeyong Lee

Xiadong Lin and Zusheng Jin

ment, are excited about the rejuvenated GSO, and look forward to making an active contribution to the Department of Statistics on an ongoing basis. ❖

1997 Distinguished Alumni Award



Statistics alumnus, Dr. Richard E. James, received one of the 1997 School of Science Distinguished Alumni Awards on April 25, 1997. These awards were established in 1990 to recognize outstanding achievement in professional and

related fields of endeavor for alumni of the School of Science. Two former award winners, Dr. Gary McDonald and Dr. Jerone Deverman, attended the presentation with their spouses, Jeanne McDonald and Wona Deverman.

Dr. James is Chief Executive Officer of Labtec Enterprises, Inc., the nation's leading

provider of speakers for multimedia computers. He received his Ph.D. in Statistics from Purdue University in 1970. He then joined General Motors Research Lab as a research mathematician, eventually becoming Director of Market Planning and Research in Corporate Product Planning. From 1977 to 1987 he held a number of positions at General Electric becoming Vice President for Marketing of GE/RCA Consumer Electronics. From 1988 to 1990, Dr. James was Vice President of Thompson Consumer Electronics, and he served as president of JBL Inc., a subsidiary of Harman International Industries and worldwide producer and marketer of consumer and professional loudspeaker systems from 1990 to 1992. He helped launch the Harman Professional Audio Group in 1993 and served as its president until early 1994, when he joined Labtec. Dr. James is recognized for his professional management experience and his knowledge and abilities in marketing and strategic planning. *

Alumni News

Hyungsok Ahn (Ph.D., 1994) is at the University of California, Santa Barbara. His paper "Semimartingale integral representation" will appear in the *Annals of Probability* and a paper on how to minimize risk in trading Wall Street options and stocks will appear in *Applied Mathematical Finance*.

During the summer of 1996, Hyunsok received a research grant from the Office of Naval Research to study reduction of the noise in the signal for a radar detector. In January, he gave a presentation of his results at the American Mathematics Society meeting in San Diego.

Hyungsok enjoys playing golf and has taken advantage of the California weather.

Raymond Carroll (Ph.D., 1974) was named a University Distinguished Professor by the Texas A&M Board of Regents for Texas A&M University.

Yung-Pin Chen (Ph.D., 1994) completed his Ph.D. under the direction of Dr. Steve Samuels.

He taught at Occidental College in Los Angeles for the first year, and is currently visiting the Mathematics Department at Pomona College in Claremont, California for his second year. Yung-Pin enjoyed teaching a basic statistics course centered around a sequence of activities and writing projects as well as a calculus course using his own designed lecture notes and projects. Frequently Yung-Pin reminds himself of those wonderful lectures and helpful teaching tips given by Professors Samuels, Moore, Davis, Lalley,

Alumni News (cont.)

Sellke, and many others at Purdue.

Professor Banks in the Psychology Department at Pomona introduced him to the signal detection theory in psychophysics, and they are collaborating on some problems in recognition memory. He participated in the West Coast Region Isolated Statisticians Workshop at Oakland, California. Yung-Pin also went to Chicago for the 1996 Joint Statistical Meetings.

Jacek Dmochowski (Ph.D., 1995) is currently an Assistant Professor in the Department of Statistics at the State University of New York at Buffalo. He teaches three courses per year (data analysis, statistical computing and introduction to probability) and is serving for one semester as the Director of Statistical Consulting.

Jacek's research, at this time, consists of continuation of model selection and a few interesting problems which came from his consulting work: sleep-waking patterns of rats (lean vs. obese); comparison of caliper and CT linear measurements of human femora with possibility of observers interpretation error; detection of medical fraud.

Jacek enjoys coaching his son, Jakub's, soccer team for St. Christopher School. Being the proud father of a swimmer and soccer player, he is still discovering western New York and loves the Adirondacks.

Mary Guidinger (MS, 1996) is working as a Statistician at Aetna's Medicare Claims Office in Phoenix, Arizona. She works primarily with the Medical Review and Benefits Integrity units in the office. She analyzes data and runs reports in SAS to identify overpayments on Medicare claims to health care providers. Mary is working hard to recoup our tax dollars! She uses statistical techniques such as random sampling and estimation theory to project overpayments.

Laura Humphreys (MS, 1990) is an Assistant Senior Statistician at Eli Lilly & Co. in Indianapolis, Indiana. Since graduation, she has worked as a statistician in pharmaceutical manufacturing at Eli Lilly & Co. She has supported manufacturing and analytical testing of tablet, capsule, oral liquids, and Animal Health products in Indianapolis and Puerto Rico. Her job is to promote statistical thinking to achieve process improvement and solve problems. Laura provides basic statistics, SPC, and root cause analysis training to their operators and support personnel. She uses both JMP and SAS to run analyses such as DOE, variance components, and regression.

SPC and acceptance sampling are also frequently used in the industry.

Laura is a member of the American Society for Quality Control (ASQC) and has served as Attendance Chair and Education Chair for the Indianapolis section.

In September of 1993, Laura married Paul Foust (a fellow Lilly employee). They have a son, John, born in February 1995 and a new son, Jacob Matthias, born April 12, 1997. She also has a nine year old stepson.

Richard E. James (Ph.D., 1970) has been a Chief Executive Officer for Labtec Enterprises in Vancouver, Washington since 1994. Prior to working at Labtec, he was President - JBL and President - Harmon Pro Audio Group. He was with General Electric for 11 years and was with General Motors for seven years. He is a past chairman for Consumer Electronics Manufacturing Association. He has been married to Jeanette for 30 years and has three children, Scott (25), who is married to Susan, Melody (22) and Ryan (16).

Arturo Kohatsu-Higa (Ph.D., 1992) is an Assistant Professor at Universitat Pompeu Fabra, Department of Economics in Barcelona, Spain. He was a

Alumni News (cont.)

Visiting Assistant Professor working with Professor Shinzo Watanabe at Kyoto University in Japan on a JSPS fellowship during the period of December 1995 to December 1996.

Jaime San Martin (Ph.D., 1990) is currently the Department Head at Ingeniería Matemática at the Universidad de Chile. Being an Associate Professor, he teaches and does research. His major research interests are Stochastic Differential Equations, Diffusions, Brownian Motion and Discrete Potential Theory. He is the proud father of two "beautiful" boys.

Daniel R. Rand (MS, 1976) spent 17 years working as an Internal Statistical Consultant for IBM. He resigned to return to school and start his own consulting business. He is nearing completion of a Ph.D. from the University of Minnesota in Industrial Engineering. Dan has stayed with his statistical roots—his thesis is in optimization and design of experiments for multiple responses.

Dan's consulting company, Rand Quality Technologies, specializes in statistical methods for quality improvement — through both training and consulting for organizations as they strive for productivity and process improvements. This has led him to several adjunct instructor posi-

tions in Minnesota. He has dealt with precision manufacturing, automotive suppliers, and quality management in educational institutions. Upon finishing his degree, Dan will pursue more widespread consulting activities, a professorial position, or, most likely, a combination of the two.

Dan's wife, Christine, is a programmer at IBM and they have two sons, Tim, 14, and Seven, 12.

Brian Yasz (MS, 1996) is a Senior Business Analyst in Fraud Prevention with American Express. He now lives and works in the greater Phoenix, Arizona area, and brags about no snow. He works with Kath Alig who also graduated from the Statistics Department with a MS in 1992.

We want to
hear from you!
Look for the
Alumni Reply
Form on page
23 and send us
your news!

Student News (continued from page 15)

Actuarial Science Awards



Aaron Lambright, was one of four winners of a John Culver Wooddy scholarship. The \$2,000 scholarships were established by the Wooddy estate to provide funds for the education of "worthy students". To be eligible, candidates must become seniors (or have equivalent standing) in the semester after the scholarship is awarded, rank in the top quartile of their classes, have successfully completed at least one actuarial examination, and be nominated by a professor at his/ her school. Preference is given to candidates who have demonstrated leadership potential through extracurricular activities.

Alumni News (cont.)

erome N. Senturia, Manger of R&D Data Sciences at the Lubrizol Corporation, Wickliffe, Ohio, died of leukemia on September 20, 1996, at his home.

Jerry received his Ph.D. in 1972 under the direction of the late Professor Prem Puri.

Jerry's dedication to the field of statistics and his commitment to quality management echoed throughout his professional career. He was an Assistant Professor of Statistics at the University of Wisconsin at Madison from 1972-1978, one year of which was spent at the University of Tromso in Norway, where he also taught statistics. In 1978 he moved from academia to the U.S. Food and Drug Administration (FDA) where he reviewed new drug applications, wrote statistical critiques and continued his research on stochastic processes. In 1982, following two years as a group leader for the FDA, he joined the Diamond Shamrock Corporation Research Center, Painesville, Ohio, where he started a statistical consulting group.

Jerry continued his career as an Industrial Statistician at the Lubrizol Corporation starting there in 1983 where he built a highly respected statistics department. Of the ten statistiIn Our Thoughts

cians he recruited, four currently hold managerial positions and all are still with Lubrizol, a testimony to his nurturing managerial style. His department was known for its leadership in the application of statistical and quality management methods. His leadership skills were recognized when he was promoted to manager of the R&D Data Sciences Department.

Jerry's professional activities and interests at the time of his death were implementing Deming's quality management philosophy, promoting statistical thinking and applying it to all activities, applying optimal experimental designs to industrial problems, analyzing data arising from research and development studies, directing the development of database systems to support research and development needs and developing computer programs to perform various statistical and business scientific procedures.

From the time he arrived in northeastern Ohio, Jerry was a very active member of the Cleveland Chapter of the American Statistical Association. In 1987, he founded the chapter's very successful annual conference, "Tools for

Regaining the Competitive Edge," which brings in major statisticians to enrich the professional lives of the chapter's members. More recently, as both a chapter member and a spokesperson for the industrial community, his efforts to create a local Ph.D. statistics department which would serve the needs of Cleveland area businesses were realized with the creation of a new department at Case Western Reserve University.

In 1996, Jerry was elected a Fellow of the American Statistical Association, a fitting tribute to his lifelong dedication to his craft.

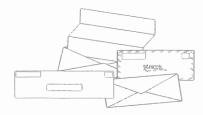
Many who mourn his passing share the views of his friend and colleague, Jerry Moreno, who wrote at the time of his death:

"Thank you, Jerry, Fellow of ASA, for affecting our professional lives in such deeply significant ways, for many years of friendship, for wonderfully enlightening conversations ..."

Jerry is survived by his wife, Grethe, and his two children Dagfinn, 21, and Astrid, 16.

Alumni Reply Form

Please complete and return this form for our alumni files. Include news (professional and/or personal) of your current activities, or suggestions for the next issue of newsletter. Mail it to Teena Seele, Department of Statistics, Purdue University, 1399 Mathematical Sciences Building, W. Lafayette, IN 47907–1399 or fax it to 765-494-0558.



Name	Degree(s) and year(s)	
Residence	Home Phone	
City, State, Zip		
Position_		
Business Address	Business Phone	
	Fax Number	
City, State, Zip		
Internet/Commercial Electronic Mail Addres	S	

Please include some information about yourself:

(unless you request otherwise, we will assume it may be mentioned in future Newsletters.)



If you need more room, please continue on the reverse side.

Alumni Reply Form (cont.)

Gifts to the Department

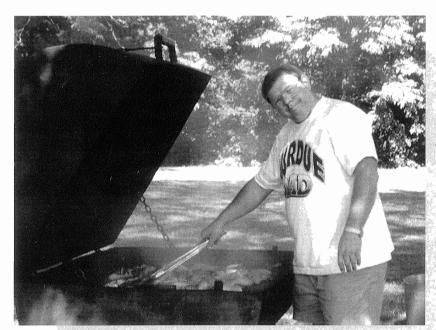
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If you would like to give to any of these funds, contact Norma Lucas at (765) 494-3141. If you are interested in planned gift, estate planning contact Pauline Shen at (765) 494-1752.

Statistics Department Annual Picnic



Bill Lucas with a grill full of chicken.

The Statistics Department picnic was held at Ross Hills, West Lafayette, Indiana, August 25, 1996. The day turned out to be beautiful and fun was had by all. There was everything from volleyball and soccer to music, flying kites and, of course, EATING! Bill Lucas, Norma's husband and our favorite chef, cooked barbecued chicken on the grill. It was most definitely worth the wait.



G. McCabe and J. Stover entertain with guitar/banjo music while W. C. Tsai watches.

1996 Annual Holiday Party



The 1996 Annual Statistics Department Holiday Party was held December 4 at The Trails in West Lafayette, Indiana. The evening was filled with good food and entertainment from some of our graduate students who put together a skit. Judging from the pictures, it was an enjoyable evening.

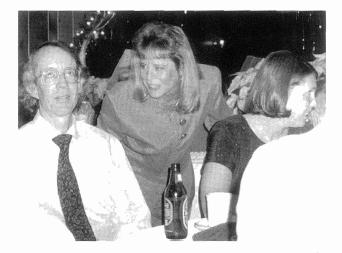


Our skit performers L-R: S. Menon, T. Hodgson, L. Flury, K. Stechuchak, R. Jones, C. Emsley, B. Lichy, R. Thorpe.



L-R: K. Merriman, J. Harkins, L Cote.







L-R: B. Davis, T. Seele, A. Berger.

The Statistics Department Newsletter is published annually for alumni 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, send e-mail to seele@stat.purdue.edu, call 765-494-5324 or write to

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