

Department News – Students, Faculty and Staff

Honors/Awards

Congratulations to **Norman Draper** who was awarded the Shewhart Medal for 2005 on May 1, 2006 at the ASQ International Conference for Quality in Milwaukee, WI, for his extensive contributions to statistics and quality!

Meng Chen received an ENAR Student Travel Award for her paper entitled Interval Mapping for Expression Quantitative Trait Loci (eQTL) Studies. Meng will start a position with Pfizer in August, 2006.

Huaibao Feng won a travel award to the Society of Clinical Trials meeting in Orlando, Florida, May 2006.

Christina Kendziorski received an R01 from NIH for work on "Statistical Methods for the Genomic Analysis of Gene Expression Data". A paper by Professor Christina Kendziorski and Yulin Zhang (Kendziorski, C.M., Y. Zhang, H. Lan, and A.D. Attie. The efficiency of mRNA pooling in microarray experiments. *Biostatistics*, 4: 465-477, 2003.) was cited as a Thomson ISI fast breaking paper in June 2005. Fast breaking papers comprise the top 1% of papers in their field and have the largest percentage increase in citations from one bimonthly update to the next.

Sunduz Keles has been selected as the winner of this year's David P. Byar Young Investigator Award presented by the Biometrics Section of the American Statistical Association. This annual award is given in memory of Dr. David

P. Byar, who made significant contributions to the development and application of novel biometrical methodology. My paper "Mixture modeling for genome-wide localization of transcription factors," which will soon appear in *Biometrics* received the highest rating from the selection committee among all submissions received.

KyungMann Kim (Ph.D. 1985) was appointed in March 2006 by the U.S. Environmental Protection Agency to a two-year term as a member of the Human Studies Review Board, a newly created Federal Advisory Committee. The HSRB was created to advise the EPA on its scientific and ethical reviews of human subjects research pursuant to the 2006 Appropriations Act and the 1996 Food Quality Protections Act.

David DeMets was named Fellow of the Society for Clinical Trials.

Rick Chappell was named Fellow of the American Statistical Association.

Fan Lu won the "Best Student Paper Award" of the ASA Statistical Computing and Graphics Section, to be awarded at JSM2006, for the paper "Kernel Regularization and Dimension Reduction". Fan also won an ENAR Distinguished Student Paper Award for his paper with Keles, Wright and Wahba, "Framework for Kernel Regularization with Application to Protein Clustering".

2005-2006 Degree Recipients

Ph.D.

The following students completed or are expected to complete their Ph.D. degree by August 2006:

Meng Chen (advisor, Christina Kendzioriski)
Guang Cheng (advisor, Michael Kosorok)
Yu Cheng (advisor, Jason Fine)
Bo Hu (advisor, Jun Shao)
Yongho Jeon (advisor, Yi Lin)
Minjung Kwak (advisor, Michael Kosorok)
Jialiang Li (advisors, Rick Nordheim, C.M. Zhang)
Fan Lu (advisor, Grace Wahba)
Yufeng Lu (advisor, Chunming Zhang)
Rui Song (advisor, Michael Kosorok)
Deepayen Sarkar (advisor: Michael Newton)
Jung Won Mun (advisor: Mary Lindstrom)

M.S.

The following graduate students completed their M.S. degrees during 2005-2006:

Hsiang Chen
Sang-Hoon Cho
Robert Erhardt
Huaibao Feng
Tim Grant
Junhee Han
Seungbong Han
Bo Huang
Nong Jin
Jing Li
Feng-Chang Lin
Tingjun Peng
Kazuhiko Shinki
Hongyu Sun
Behrang Vali

B.S.

The following students received their Bachelor's degree with a major in Statistics during the 2005-2006 academic year:

Kei Ting Katy Chan
Robin Cho
Martha Hong
Tejinder Judge
Christopher May
Jessica Sholiton
Erin Wicke
Kwok Man Wong
Adam Wosoba
James Yonker

New Students

Brazeau, Heather M.	USA
Chen, Lu-Hung	Taiwan
Chung, Yujin	Korea
Eng, Kevin H.	USA
Haaland, Ben Adam	USA
Kulkarni, Varsha	India
Lu, Darlene	USA
Pei, Qinglin	China
Reyes, Perla E.	Mexico
Ronca, Justin	USA
Savitsky, Terrance D.	USA
Shang, Zuofeng	China
Tang, Rui	China
Tran, Quoc Tan	Vietnam
Wang, Sheng	China
Yang, Xipei	HK

Seminar Speakers for 2005-06

The ongoing series of interesting seminar talks and speakers continued during 2005-06. Several departmental faculty and other UW campus speakers took part in this colloquia. Numerous financial contributions enables this department to bring in many off-campus speakers as well. Titles of their talks are listed below:

Jun Shao - Treatment Effect in Clinical Trials with Dropout

Doug Bates and Cecile Ane - Introduction to Department Research

Ramani Pilla, Case Western Reserve University - The Volume-of-Tube Formula: Perturbation Tests, Mixture Models, Scan Statistics and Applications

Jun Zhu -Statistical Modeling of Spatial-Temporal Data in a Forest Entomology Study

Dave DeMets and Murray Clayton - Introduction to Department Research

Richard Johnson, Confidence Regions for the Ratio of Percentiles from Two Distributions

Debajyoti Sinha, Medical University of South Carolina - Models for Recurrent Events Data with Dependent Termination: A Bayesian Perspective

Arnaud Doucet, Depts. of Computer Science and Statistics, The University of British Columbia On-Line Parameter Estimation in Non Linear Non Gaussian State-Space Models

Moo Chung -Madison Heat Kernel Smoothing on Unit Sphere and its Application to Medical Imaging

Michael Kosorok, Large p Small n Asymptotics for Statistical Analysis of High Dimensional Data

Alicia Carriquiry, Iowa State University - Incorporating Multiple CDNA Microarray Slide Scans into Statistical Analyses -Application to Somatic Embryogenesis in Maize

Zhihua Qiao, The Wharton School, U of Pennsylvania - Sparse Linear Discriminant Analysis

Jayanta Pal, University of Michigan, Ann Arbor - Estimation of Link Functions in Monotone Response Models

Alexander Aue, University of Utah Change-Point Monitoring in Linear Models with Conditionally Heteroskedastic Errors

Xiaofeng Shao, University of Chicago - Fourier Analysis in Time Series: Some

Theory and an Application to Space-Time Modeling

Zhiguang Qian, ISyE, Georgia Institute of Technology - Design and Analysis of High-Accuracy Experiment and Low-Accuracy Experiment

Cecile Ane, Analysis of Tree-Structured Data

Don Porter - A Week in the Life

Bradley P. Carlin, Div of Biostatistics, School of Public Health, Univ. of Minnesota Using R and BRugs in Bayesian Clinical Trial Design and Analysis

Terry Speed, University of California, Berkeley Analysis of Time Course mRNA Translation Profiles in Drosophila

David Griffeath, UW-Madison Mathematics - Modeling Snow Crystal Growth

Wei-Yin Loh - Regression Tree Models for Data from Designed Experiments

Mohsen Pourahmadi, Division of Statistics Northern Illinois University - Generalized Linear Models for the Covariance Matrix of Longitudinal Data

Ross Prentice, Division of Public Health Sciences, Fred Hutchinson Cancer Research Ctr, Seattle, WA - Aspects of the Design and Analysis of High-Dimensional SNP Studies for Disease Risk Estimation

Steve Bailey, DuPont Engineering Technology, Quality Management and Technology Some Statistical Applications of Six Sigma in DuPont

Andrew F. Siegel, Depts. of Statistics, Management Science, & Finance, Univ. of Washington, Seattle - Performance of Portfolios Optimized with Estimation Error

Lecturers and Visitors

A Visitor to our department during the academic year was Pei-Sheng Lin. Don Porter, Nick Keuler, Miriam Lamb, Sona Swanson, Brian Goodman and Sue Gill served as lecturers for some of our courses during 2005-06.

Thanks to Donors

We would like to acknowledge the many generous contributions to the UW Statistics Department. This money is used in many ways to help fund several departmental activities. Contributors for 2005-06 have been:

Graduate Student Support Fund

Susan Anderson
Hongyu Jiang
Xianhong Xie
Wing-Keung Wong
Mr. Jin Wang & Ms. Rong He
Robert Mau, Jr.
David Reboussin
Christopher Morrell
Lochner Trust for Robert Lochner
Ruojia Li
Mr. & Mrs. Son Lin Lai
Irene Helenowski
Kevin Gross
Rudy Gideon
Feng Gao
Glaxosmithkline (through Ian Hau)

George Box Endowment Fund

Herman and Joan Habermann

Department Fund

Shu-Chen Ho Wu
R. Bruce & Barbara Lind
Sung K. Ahn
Michael Torphy
Lawrence McGuire Jr.
Dennis Wolf
Mr. & Mrs. James Wendelberger
John Wetz
Martin Matzinger
Andrzej Jaworski
Mr. Shu-Yen Ho & Ms. Suping Chiao
Bruce Craig
W. Donald Gough, Jr.
Mr. & Mrs. David Ellwein

Our heartfelt thanks go to all of those who made contributions.

Departmental News

Student internships Summer 2006

Fan, Chunpeng; Sonafi-Aventis, NJ
Fang, Fang; Merck, PA (Clinical trials)
Feng, Huaibao; Merck, PA (Sequential testing in clinical trials)
Huang, Bo; Pfizer, CT

Lin, Ting-li; Quintiles
Wang, Shubin; Merck, NJ (Image analysis)
Wei, Xiaodan; Pfizer, CT (Clinical biomarkers)
Xu, Jing; Morgan Stanley, NY
Xu, Lei; Eli Lilly, IN
Xu, Ruifeng; Covance, WI
Zheng, Wei ; Covance, WI

Grace Wahba gave a plenary talk this May at CASI06, the 26th Conference on Applied Statistics in Ireland in Killarney, Ireland, at the invitation of her former PhD student Finbarr O'Sullivan, (1983) who occupies the Chair of Statistics in the School of Mathematics, Applied Mathematics and Statistics at Cork. It was a chance to reunite with Finbarr and Janet and his lovely daughters, as well as John Crowley, a former faculty member in our department, and be impressed at the strength and breadth of the Applied Statistics community in Ireland.

Fan Lu (Ph.D. '06), (student of Grace Wahba) will be joining alphasimplex in Boston upon graduation.

In June, **Richard Johnson** gave talks at Stellenbosch University (near Cape Town) and the University of the Free State in Bloemfontein, South Africa. Rich and his wife Bobbie also had an enjoyable dinner with faculty members from Wits University in Johannesburg. On two of these occasions, he was told how much the South African statisticians enjoyed and appreciated the visit by George Box some time in the 1970's. That is quite an impression!

The Statistics Department is pleased to welcome **Dr. Cecile Ane** who in June 2006 accepted a joint appointment as Assistant Professor in the Departments of Botany and of Statistics. Dr. Ane has spent the past two years in Madison serving as a Visiting Assistant Professor jointly in Botany and in Statistics. During this time she taught an introductory statistics course for undergraduate biology students several times as well as a graduate seminar course in statistical phylogenetics for both biologists and statisticians focused on methods to model and study the evolution of

traits. Her future teaching will likely include these courses as well as statistics courses for graduate students in biology, a phylogenetics methods course, and participation in Botany seminars. Dr. Ane's research specialty is the development of methods for phylogenetic inference, meaning that she creates new methods to use genetic information such as DNA sequences to learn about evolutionary relationships, mutational processes that lead to inherited genetic variation, and the evolutionary history of traits. Her methods include means to quantify the uncertainty in the evolutionary inferences. Highlights of Dr. Ane's research includes development of a novel model for DNA sequence evolution that models an important kind of rate heterogeneity that standard models ignore, methods to study many species and many genes when there is significant missing data, and a tree-based method for DNA sequence compression that has connections to statistical information theory. Future plans include bridging the gap between two disciplines by incorporating theory from population genetics into phylogenetic methods. Much of her research is computationally intensive and she collaborates closely with statistical and evolutionary colleagues, Bret Larget and botanist David Baum. Prior to joining UW, Dr. Ane obtained her Ph.D. in Mathematics in 2000 from the University of Toulouse, France, where she studied probability theory. She held a position at the University of Paris 11 for a number of years during which time her research interests began to shift from proving theorems about probability to statistical phylogenetics. In 2003, she went on leave while her husband Dr. Jean-Michel Ane took a position as a post-doc in a lab in UC-Davis. Shortly thereafter, Dr. Ane joined leading evolutionary biologist Mike Sanderson's lab as a post-doc where she made significant

contributions to three research projects in one short year. UW was fortunate to hire Dr. Cecile Ane to a visiting position two years ago at the time her husband accepted an Assistant Professor position in Agronomy. Welcome, Cecile!

Yuefeng Lu, student of Chunming Zhang, defended his thesis in March 2006 (thus graduated in May). His current job is Statistician at Eli Lilly and Company.

Fan Lu writes: The Statistics Department Soccer team, for the second year in a row, beat the soccer team of the Sociology Department on Oct. 16. The first game was the year before last, when we had a 0:0 draw. (So, we've never lost to them, ever!) Kai (Xu, Jing's husband) sent in the no-doubt penalty kick as the game winner at the end of the first half. In summary, it was a very tough game, and our team made tremendous effort which paid off. My Captain's pick of the MVP of the game is Steve Stanhope. He was our star of the defense in the game. Everyone in the team also did great. Let's try to keep this soccer game (and winning the game) as our good tradition, do it again and again and ... Thanks to Kjell for organizing this event again this year. Thanks to our sporting crew (to name a few: Dr. Tsui, Dr. Johnson, Christina, Hyapatia...) We'd like to see more next time! **GO STATISTICS!**

News from and About the Alumni

Stephen Stigler receives Humboldt Research Award for lifetime achievements

The Alexander von Humboldt Foundation in Bonn, Germany, has announced that

Professor Stephen M Stigler, University of Chicago Department of Statistics, has been elected the recipient of a Humboldt Research Award. He was nominated for the award by the German scientists Prof Dr Gerd Gigerenzer and Prof Dr Wolfgang Härdle. The Humboldt Research Award is conferred in recognition of lifetime achievements in research. In addition, the awardee is invited to carry out research projects of his/her own choice in cooperation with specialist colleagues in Germany, with the intention of promoting international scientific cooperation. The Alexander von Humboldt Foundation grants up to 100 Humboldt Research Awards annually to scientists and scholars from abroad with internationally recognized academic qualifications. The award can amount to a maximum of 75,000 Euros (\$93k). Further information on the Humboldt Foundation website:

<http://www.humboldtoundation.de/en/programme/preise/index.htm>

Bin Yu appointed Peking University Professor

Bin Yu has been named a Chang Jiang Chair Professor in Statistics at Peking University, Beijing. She is also the founding co-director of the new Microsoft Lab on Statistics and Information Technology at Peking University. She will remain based at Berkeley, and will spend summers in Beijing.

PROBAL CHAUDHURI NAMED IMS FELLOW

Probal Chaudhuri, Professor, Indian Statistical Institute, Calcutta, was named Fellow of the Institute of Mathematical Statistics (IMS). The induction ceremony took place August 8, 2005 at the Joint

Statistical Meetings in Minneapolis, Minnesota, USA. Professor Chaudhuri received the award for his contributions to nonparametric quantile estimation, multivariate location estimation, the scale-space approach to nonparametric smoothing, and classification. Each Fellow nominee is assessed by a committee of his/her peers for the award. In 2005, after reviewing 32 nominations, 15 were selected for Fellowship. Created in 1933, the Institute of Mathematical Statistics is a member organization which fosters the development and dissemination of the theory and applications of statistics and probability. The IMS has 4100 active members throughout the world. Approximately 10% of the IMS membership has earned the status of fellowship.

Shuangge Ma (Ph.D. '04) was married on June 23 in Lake Tahoe, CA.

Ron Kenett who taught in the department in 1978-1980 is sending a warm hello from Israel. In retrospect, his two years in Madison had a very significant impact on a varied career with alternative positions in academia and industry. Specifically, the "Beer and Statistics" seminar has been a unique role model demonstrating how statistics is contributing to solve real problems, while having fun. After leaving Madison, Ron worked for Bell labs, took on a position of Director of Statistical Methods for a Telecom corporation, taught at Tel Aviv University, the State University of New York - Binghamton and is now Professor at the University of Torino, Torino, Italy where he teaches short courses on applications of statistics. In 1990, Ron founded KPA Ltd., a mid-size management consulting firm with 4 areas of activity: 1) Strategic planning, 2) Market research and customer surveys, 3) Organization development and employee surveys and 4) Statistical consulting

(Industrial statistics, biostatistics, operational risks, data mining,...). More information on KPA is available at www.kpa.co.il. Twenty five years later, looking back at the Madison "vision for statistics", much remains to be done to turn statistics into a core discipline in science and industry. Unfortunately it is not clear that academia is making a positive contribution. Industry bred initiatives such as six sigma apparently contributed more. The consulting experience is strongly reinforcing this observation. These years have also been characterized by other disciplines entering into traditional areas of statistics and providing innovative and attractive solutions. Statisticians are losing battles to computer scientists, physicists, biologists, psychologists, all contributing to Statistics in the wide sense - is this the result of the "democratization of statistics"? In some sense it seems like the profession is committing suicide by not reacting strongly enough to new challenges and opportunities. There are however some signs that things are changing. One of them is ENBIS, the European Network for Business and Industrial Statistics (www.enbis.org) - a group of over 1200 committed statisticians interested in the application of statistics. Ron is president elect of ENBIS. One of the ENBIS founders is Soren Bisgaard and many ENBIS members share the Madison experience. You are all cordially invited to join ENBIS (it is free...). Information on the books and papers published by Ron is available at http://www.kpa.co.il/english/publications/papers/RSK_Academic_CV_2006.pdf Ron's email is ron@kpa.co.il and he will gladly correspond with anyone interested in the issues raised above.

Some of you may remember **Jong Soo Lee** who earned an MS from our Department several years ago. After working for awhile, Jong Soo returned to grad school and just completed his Ph.D. in Statistics at Rice University under the direction of **Dennis Cox**, a former faculty member here.

Ram C. Tripathi, a 1975 Ph.D. writes that he enjoys reading the WISTAT NEWS and reports that his address has changed. Please make a note of his new address:

Ram C. Tripathi
Department of Management Science and
Statistics University of Texas at San
Antonio San Antonio, TX 78249

Ram was in the department during 1969-75 and remembers fellow students Bruce Lind, Hermann Habermann (who visited San Antonio last semester), Kishan Mehrotra; (they were quite senior him). Those with him who he can remember are: David Wang, C. P. Kartha, Ralph St. John, Bill Davis, Bahadur Singh, Bovas Abraham, Austin Lee, Henry Liao, Greta Ljung, and Andreas Philippou.

Lucy Kwan (M.S. 1977) wrote that she too enjoys receiving the Wistat News and is

most happy to share with everyone the following news about herself:

"I have recently left Experian to recharge myself. In the last twenty years, I have dedicated myself to building up Smartal Solutions, an information services company operating in Hong Kong and mainland China, which was acquired by the Experian Group last year. To me it has been a most challenging career building up a business intelligence and marketing analytics solution business here by developing a team of competent staff, migrating the original Smartal solutions to the Experian portfolio and opening a Shanghai office in a year. Please also send my regard to Professor Bob Wardrop, and will appreciate getting his email. Please update my new contact details below."

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Family News

We learned that **Yuefeng Lu, Ruifeng Xu** and **Shijie Tang** were married since the last issue of the Wistat News.

Crystal Shiau, daughter of **Jyh-Jen Shiau** (Ph.D. '85) is an undergraduate at Madison and Grace Wahba, her mother's thesis advisor, was delighted to have the chance to visit with Crystal. Jyh-Jen is at National Chiao Tung University.

Yi Lin writes: I am happy to announce the birth of baby Grace Lin at 10:37am on January 13th. At birth her weight is 7 pounds 3 ounces, and her length is 20 1/4 inches. Both the mother and the baby are doing great and are at home now.

We extend our deepest sympathy to **Ismor Fischer** whose wife, Carla Blum, passed away on July 6, 2006

Announcement

After 32 years in the Department, **Bob Wardrop** retired on July 9, 2006. Bob wants to thank all current and former students and faculty for everything.

(Editors Note: Bob, we in the Statistics Office will miss having you come in and share your many anecdotes and great conversations. Don't be a stranger and stop in from time to time for some more good chats.)

