

Fall 2007

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## *from the* **CHAIR**



Another successful year has gone by, and it is time to once again report to you on the many exciting developments over the past year.

In January 2007 Rhonda DeCook joined us as assistant professor in statistics. She is a great addition to the department. Unfortunately, Jun Yan decided to leave Iowa for a position in the Department of Statistics at the University of Connecticut as that area provides more professional opportunities for his wife, Jiafeng. We were sad to see Jun leave but wish him the best at Connecticut. After a long career at Iowa, Jim Broffitt has started on phased retirement. He will be working half-time for the next three years and fully retire in 2010.

On a sad note, I am very sorry to report that Dorothy Kelley, who served on the administrative staff of the department for 19 years, passed away this last January 2007. Dorothy was a wonderful person and will be sorely missed.

This year we graduated five Ph.D. students: Andrew Ng, Lili Zhao, Huiliang Xie, Peng Sun, and Subhashish Chakravarty. Andrew and Huiliang have taken assistant professor positions, Lili and Peng have taken positions in industry, and Subhashish has a visiting position with our department for this academic year. We also awarded 39 M.S degrees and 11 B.S degrees in Statistics and Actuarial Science. Our students' pass rates on the SOA exams continue to be exceptional. In addition, 16 alumni became Fellows and 37 became Associates of the Society of Actuaries.

We are very grateful for the generous donations from alumni, friends, and companies who allow us to attract and support the best students. During the 2006-2007 academic year we spent more than \$109,000 on our students, the vast majority in the form of scholarships, actuarial exam fee reimbursements, and prizes. This is a big investment, but having the best students makes it worthwhile. Thank you for helping to make our programs successful!

A very important way to support the department's efforts in hiring and retaining the best faculty is the establishment of endowed chairs in the department. We recently instituted the Robert V. Hogg Professorship at the Foundation to fund a chair in our department in Bob's honor.

I hope you will enjoy reading the news about the department, students, faculty, and alumni on the following pages. We would be happy to include any news you would like to share with former classmates in next year's newsletter. Please use the enclosed sheet to send your information, or send us an email.

Luke Tierney  
Chair, Statistics and Actuarial Science  
Ralph E. Wareham Professor of Mathematical Sciences  
(319) 335-0712  
luke-tierney@uiowa.edu

# Faculty and Staff News



**Rhonda DeCook** joined the faculty as an assistant professor in statistics in January 2007. She came to our department after graduating from Iowa State University in Ames, Iowa. Her research interests include statistical methods for microarray analysis, QTL analysis, and eQTL analysis, and computer-intensive methods with application to the biological sciences. Welcome, Rhonda!!



**John Geweke** was on Career Development Leave during the 2006-2007 academic year, spending part of that time as Visiting Distinguished Professor at University of Technology Sydney (Australia). His travels also took him to Europe and the Far East. John kept busy in Iowa City as well, with four of his Ph.D. students completing dissertations in statistics and economics. Recently the National Science Foundation Economics Program funded his research on "Smoothly Mixing Regression Models." John currently serves as a member of the Board on Mathematical Sciences and its Applications, National Research Council, and as co-editor of *Journal of Econometrics*.



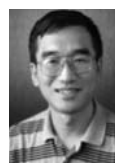
Since May 2007, the Society of Actuaries has a new examination on the mathematics of option-pricing theory, because of its importance in risk management. **Elias Shiu** has joined the Examination M Financial Economics Segment Committee, which is responsible for the development of this examination. Beginning in 2008, this examination will be co-sponsored by the Casualty Actuarial Society.



**Joseph Lang** has been elected a 2007 Fellow of the American Statistical Association (ASA), the nation's preeminent professional statistical society. Congratulations, Joe!



In November 2006, **Luke Tierney** presented one of three keynote talks at the annual meeting of the Korean Statistical Society in Seoul, Korea. The title of his presentation was "R: An Overview and Some Current Directions." Other keynote speakers at the event were Douglas Nychka and Bernard Silverman.



**Jian Huang** was invited to participate and speak in the workshop on "Statistical Analysis of High-Throughput Genetic Data" at Banff International Research Station, Calgary, Canada in June 2007. In addition, he was invited to participate and speak in the workshop on "Statistical and Epidemiology Issues in HIV Research," April 2007 in Vail, Colorado. This workshop was sponsored jointly by the NIH, NIAID, and Division of AIDS.



**Dale Zimmerman** presented two talks this year. The first was at the Conference on Multivariate Methods in Environmetrics in Chicago and the second talk was at the Joint Statistical Meetings in Salt Lake City. In addition, at the Joint Statistical Meetings, Dale received the Distinguished Achievement Award from the Section on Statistics and the Environment of the American Statistical Association for significantly contributing to the ENAR section as Program Chair and serving on the Fellows Committee as well as the Student Awards Committee, for his leadership on editorial boards and meetings, and for his many years of outstanding contributions in environmental sciences through his publications and teachings. Congratulations, Dale!



**N.D. Shyamalkumar** gave an invited talk in the opening workshop of the SAMSI program on Risk Analysis, Extreme Events and Decision Theory at Research Triangle Park, NC. He is completing his third year serving as an elected council member of the Technology section of the SOA, and his second year as the editor of its newsletter. Shyamal also serves on a committee of the SOA considering introducing computing/technology related education requirements for the ASA/FSA designation.



**Qihe Tang** visited the Department of Statistics & Actuarial Science at The University of Hong Kong for research and collaboration during July 25-August 24, 2007. He also attended the 2007 Shanghai and Hong Kong Insurance and Actuarial Forum, held at East China Normal University during August 18-19, 2007. As an invited speaker, he gave a presentation entitled "On Stochastic Difference Equations with Subexponential Innovations."



**Tammy Siegel** was a recipient of the Mary Louise Kelly Staff Excellence Award given by the College of Liberal Arts and Sciences. This award recognizes staff whose accomplishments and contributions have benefited their departments. Tammy was nominated by Jessie Trepanier for her strong dedication, outstanding service and commitment to the department's students and faculty. Keep up the great work, Tammy!



**Dorothy Kelley**, who worked on our administrative staff from 1986 to 2005, passed away after a long and courageous battle with cancer on January 13, 2007. She was 67. After she retired in 2005, she moved to her daughter's home in Minnesota. Dorothy spent her remaining months doing what she loved the most: teaching her three grandchildren about history, literature, sewing, and living a happy life.

## Faculty Books



**Jonathan Cryer** and **Kung-Sik Chan** have revised Jon's earlier book entitled *Time Series Analysis*. The second edition will be published by Springer Verlag with the following title, *Time Series Analysis with Applications in R*, by Jonathan D. Cryer and Kung-Sik Chan.

The second edition presents an accessible approach to understanding time series models and their applications. Although the emphasis is on time domain ARIMA models and their analysis, the new edition devotes two chapters to the frequency domain and three to time series regression models, models for heteroscedasticity, and threshold models. All of the ideas and methods are illustrated with both real and simulated data sets. A unique feature of this edition is its integration with the R computing environment. The tables and graphical displays are accompanied by the R commands used to produce them. An extensive R package, TSA, that contains many new or revised R functions and all of the data used in the book accompanies the written text. There is also an extensive appendix in the book that leads the reader through the use of R commands and the new R package to carry out the analyses.

## More Recent Publications

**Bognar, M.A.** (2006). On Bayesian inference for the K-function. *Biometrical Journal*, 48:2, 205-219.

**Chan, K.S.**, Ho, L.-H. and Tong, H. (2006). A note on time-reversible multivariate linear processes. *Biometrika*, 221-7.

Dhaene, J., Vanduffel, S., Goovaerts, M.J., Kaas, R, **Tang, Q.** and Vyncke, D. (2006). Risk measures and comonotonicity: A review. *Stochastic Models*, 22, 4, 573-606.

Gerber, H.U. and **Shiu, E.S.W.** (2006). On the merger of two companies. *North American Actuarial Journal*, 10, 3, 60-67.

Gerber, H.U. and **Shiu, E.S.W.** (2006). On optimal dividend strategies in the compound Poisson model. *North American Actuarial Journal*, 10, 2, 76-93; Discussions 10 no. 3, 68-84.

Gerber, H.U., **Shiu, E.S.W.** and Smith, N. (2006). Maximizing dividends without bankruptcy. *ASTIN Bulletin: The Journal of the ASTIN and AFIR Sections of the International Actuarial Association*, 36, 5-23.

Gerber, H.U. and **Shiu, E.S.W.** (2006). On optimal dividends: From reflection to refraction. *Journal of Computational and Applied Mathematics*, 186, 4-22.

Halekoh, U., Hojsgaard, S. and **Yan, J.** (2006). The R package geepack for generalized estimation equation modeling. *Journal of Statistical Software*, 15(2), 1-11.

**Huang, J.**, Horowitz, J. L., and Ma, S. G. (2007). Asymptotic properties of bridge estimators in sparse high-dimensional regression models. Accepted for publication by the *Annals of Statistics*.

**Huang, J.**, Ma, S. G., and Zhang, C.-H. (2007). Adaptive Lasso for Sparse High-Dimensional Regression Models. Accepted for Publication by *Statistica Sinica*.

**Lang, J.B.** (2006). Applications of profile confidence intervals for contingency table parameters. *Proceedings of the 2006 International Statistical Modelling Workshop*.

**Lenth, Russell V.** (2006). "Journal of the American Statistical Association," in *Encyclopedia of Measurement and Statistics*, ed. Neil J. Salkind, 499-500, SAGE Publications, Inc., Thousand Oaks, CA.

**Lenth, Russell V.** (2006). "Sample size," in *Encyclopedia of Measurement and Statistics*, ed. Neil J. Salkind, 856-860, SAGE Publications, Inc., Thousand Oaks, CA.

Lu, M. G., Zhang, Y., and **Huang, J.** (2007). Estimation of the Mean Function with Panel Count Data Using Polynomial Splines. Accepted for Publication by *Biometrika*.

Ma, S.G., Kosorok, M.R., **Huang, J.**, Xie, H.H., Manzella, L. and Soares, M.B. (2006). Robust semiparametric microarray normalization and significance analysis. *Biometrics*, 62: 555-561.

Ma, S. G. and **Huang, J.** (2007). Clustering Threshold Gradient Descent Regularization: with Applications to Microarray Studies. *Bioinformatics*, 23: 466-472.

Stucky, T.D., Heimer, K. and **Lang, J.B.** (2007). A bigger piece of the pie?: An analysis of state corrections spending over time. *Journal of Research on Crime and Delinquency*, 44, 91-123.

**Russo, R.P.** and **Shyamalkumar, N.D.** (2007). Reading policies for joins: An asymptotic analysis. *The Annals of Applied Probability*, 17, 230-264.

**Shyamalkumar, N.D.** and Varadarajan, K. (2007). Efficient subspace approximation algorithms. *ACM-SIAM Symposium on Discrete Algorithms*, 532-40.

Stenseth, N.D., Jorde, P.E., **Chan, K.S.**, Hansen, E., Knutsen, H., Andre, C., Skogen, M.D. and Lekve, K. (2006). Ecological and genetic impact of Atlantic cod larval drift in the Skagerrak. *Proceedings of the Royal Society B*, 273, 1085-1092.

Stenseth, N.C., Samia, N.I., Viljugrein, H., Kausrud, K.L., Begon, M., Davis, S., Leirs, H., Dubyanskiy, V.M., Esper, J., Ageyev, V.S., Klassovskiy, N.L., Pole, S.B. and **Chan, K.S.** (2006). Plague dynamics are driven by climate variation. *Proceedings of the National Academy of Sciences, USA*, 103, 13110-13115

**Stramer, O.** (2006). Exact and computationally efficient likelihood-based estimation for discretely observed diffusion processes: Comment. *Journal of the Royal Statistical Society, Series B*, Volume 68, Part 3, 376.

**Tang, Q.** (2006). Asymptotic ruin probabilities in finite horizon with subexponential losses and associated discount factors. *Probability in the Engineering and Informational Sciences*, 20, 1, 103-113.

**Tang, Q.** (2006). Insensitivity to negative dependence of the asymptotic behavior of precise large deviations. *Electronic Journal of Probability*, 11, 4, 107-120.

**Tang, Q.** (2006). On convolution equivalence with applications. *Bernoulli*, 12, 3, 535-549.

Wang, D. and **Tang, Q.** (2006). Tail probabilities of randomly weighted sums of random variables with dominated variation. *Stochastic Models*, 22, 2, 253-272.

Zhang, H. and **Zimmerman, D.L.** Hybrid estimation of semivariogram parameters. (2007) *Mathematical Geology*, 39, 247-260.



## GRANTS

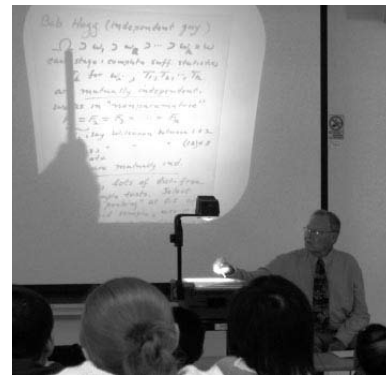


Statistics and Actuarial Science has purchased a Beowulf

computing cluster. The cluster will be used in faculty and graduate student research, and will be integrated into the UI research computational Grid (HawkGrid) operated by the Grid Research and Education Group at Iowa. The cluster was funded by a grant from the National Science Foundation to **Kate Cowles (PI), John Geweke, Jian Huang, Luke Tierney, and Jun Yan.**

In February 2007 **Luke Tierney** received a grant from the National Science Foundation for \$10,000 to support travel for graduate students and young researchers to the Directions in Statistical Computing workshop in Auckland New Zealand and other meetings related to the R statistical software system.

# alumni FELLOW



and Sciences graduates for their outstanding contributions to society, their professions, the College, and The University of Iowa. The program is made possible

In September 2007, **Professor Robert V. Hogg** was named a College of Liberal Arts and Sciences Alumni Fellow. The Alumni Fellows program, established by Dean Linda Maxson in 1999, formally recognizes College of Liberal Arts

sible by funds from the UI Alumni Association Dean's Chair in the Liberal Arts and Sciences.

The founding chair of the Department of Statistics and Actuarial Science at Iowa, Robert V. Hogg taught at Iowa from 1948 until his

retirement in 2001. At some point in his long teaching career, Hogg took to singing "Thanks for the Memories" at the end of every course and found a way to work his students' names into the song. He made the study of statistics exciting to a whole generation of Iowa students. Hogg earned a B.A. in mathematics from the University of Illinois in 1947. In 1948 and 1950, he received respectively the M.S. and Ph.D. from Iowa's Department of Mathematics. In 1966, he was elected as a fellow of the American Statistical

Association. In 1967, he also was elected as a fellow of the Institute of Mathematical Statistics. A leader in statistical research and education, he co wrote texts that have become classics in the field, *Introduction to Mathematical Statistics* (1959) and *Probability and Statistical Inference* (1977). Hogg has been recognized for his teaching skills many times. He received the Governor's Science Medal for Teaching in 1990 and the Mathematical Association of America Award for Distinguished Teaching in 1992.

## Time Series Conference

On September 14-15 of 2007, the University of Iowa hosted the 2007 National Bureau of Economic Research/National Science of Foundation (NBER/NSF) Time Series Conference in Iowa City. The NBER/NSF Time Series Conference is an annual event aiming to bring together the most productive researchers in time series analysis to exchange new ideas. In this year's conference, there were about 80 participants, a number of them from countries in Europe, Asia, and South America. Nineteen invited speakers presented their new research findings in 6 single sessions over two days, plus two sessions of invited poster presentations by another nineteen experts. These presentations covered a wide variety of current research topics ranging from econometrics, financial time series and volatility, Monte Carlo methods, mixture models, multiple time series, nonlinear time series, time-series applications in actuarial science and hydrology, etc.

The conference organizers included three local organizers and three permanent organizers:

**Kung-Sik Chan** (*University of Iowa, local organizer*)

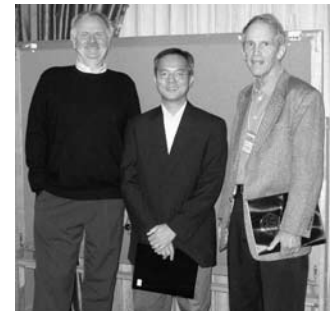
Richard A. Davis (*Columbia University*)

**John Geweke** (*University of Iowa, local organizer*)

**Johannes Ledolter** (*University of Iowa, local organizer*)

James H. Stock (*Harvard University*)

Ruey S. Tsay (*University of Chicago*)



Conference organizers (left to right) Johannes Ledolter, Kung-Sik Chan and John Geweke.

The NBER/NSF TSC is one of the Conferences on Econometrics and Mathematical Economics (CEME) that is partially funded by NSF and administered by NBER. The following units of the University of Iowa have graciously supported the conference by the Department of Statistics and Actuarial Science, College of Liberal Arts and Sciences, and the Henry B. Tippie College of Business. The Organizing Committee gratefully thanks these units for their generosity in providing funding to the conference. In particular, the Department of Statistics and Actuarial Science provided much help and lent some dedicated staff for running some of the administrative chores of conference. The Organizing Committee would like to mention Tammy Siegel and Jessie Trepanier. Their enthusiasm and diligence helped make the meeting a great success.

Next year, the conference will be held in Aarhus, Denmark.

## Congratulations to Iowa alumni who became associates or fellows in the Society of Actuaries!

### SOCIETY OF ACTUARIES Fellows (FSA)

September 2006  
Jason Franken, BS 1997  
Olga Petushkov, BS 2000  
Nathan Wenz, BS 2003

November 2006  
Eduardo Fernandez de Garayalde, MS 2001  
Valerie Nelson, BS 2002  
Jingsu Pu, MS 2000

March 2007  
Katherine Karch, BS 2002  
Wenyi Lu, MS 2000  
Bradly Melton, BS 2002  
Brooke Swanson, BS 2002

May 2007  
Neil Berns, BS 1998  
Nathan Stone, BS 2000  
Linyi Zhang, MS 2000

August 2007  
Landon Horton, MS 2002  
Seet-Yeow Elvin Tharm, MS 2001  
Fang Linda Wang, MS 2001

### SOCIETY OF ACTUARIES Associates (ASA)

August 2006  
Yin He, MS 2005

September 2006  
Kingsley Agyei-Gyamfi, MS 1998

October 2006  
Nathan Jackman, BS 1999

December 2006  
Luba Aginsky, BS 2005

April 2007  
Minh Doan, MS 2006  
Frederick Hyland, BS 1995  
Yukan Karen Jiang, MS 2004  
Naihui Li, MS 2001  
Jennifer McGinnis, MS 2006  
Cheuk Yin Andrew Ng, Ph.D. 2007  
Anita Recchio, MS 1994  
Brenda Veik, MS 2005

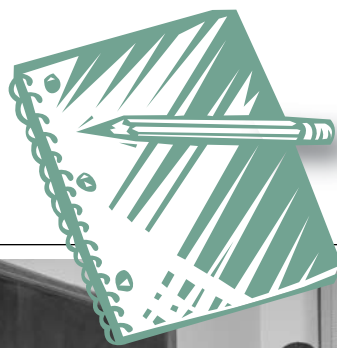
May 2007  
Yuhui Cindy Chen, MS 2006  
Cory Gusland, BS 2006  
Emily Montag, BS 2006  
Chris Plucar, MS 2004  
Emily Roling, BS 2006  
Vicente Velarde, MS 2001  
Biou Xu, MS 2004  
Yuying Zheng, MS 2005

July 2007  
Natalie Foreman, BS 2006  
Zhenzhou Lei, MA Econ 2004  
Shaowei Yang, MS 2006  
Haixia Zhang, MS 2005  
Xiaotian Zhong, MS 2004

August 2007  
Sebastian Carrillo, MS 2006  
Chun He, MS 2005  
Jia Luo, MS 2004  
Xiongbin Liu, MS 2006  
Christopher Sill, BS 2005  
Jin Yan, MS 2004

September 2007  
James Abbott, MS 1993  
Elizabeth Alexander, BS 2003  
Jialan Chen, MS 2003  
Johanna Kleckner, BS 2005  
Komla Kuagbena, BS 2004  
Jie Zhou, MS 2007





# student NEWS



(left to right) Yu Jiang, Pui Sai (Sharon) Lau, Todd Matteson, Robert Taylor, Wade Daniluk, and Kent Schrad

## Student Awards and Scholarships

Our annual student awards were presented on May 3, 2007. The Allen T. Craig Award for outstanding teaching assistant was shared by **Jayakrishnan Kurup** and **Sorah Park**. **Hai Liu** took home this year's Henry L. Rietz Award for best performance on the Ph.D. Comprehensive Examination. For outstanding performance in the Actuarial Science program, **Jie Zhou** won the Lloyd A. Knowler Award.

We also presented several Robert H. Taylor Awards for academic achievement in Actuarial Science. This year's recipients were: **Wade Daniluk**, **Yu Jiang**, **Bangwon Ko**, **Pui Sai (Sharon) Lau**, **Todd Matteson**, and **Kent Schrad**.

Scholarships totaling \$86,335.00 were awarded to 26 students in the 2006-07 academic year. Included among these were several named scholarships:

*AEGON Foundation Scholarship*  
**Kyle D. Mullholland**

*Allied Insurance-Nationwide Foundation Scholarships*  
**Myung Joo Kim** and **Pamela M. Walz**

*AmerUs Charitable Foundation Scholarships*  
**Hing Wu** and **Jie Zhou**

*CIGNA Foundation Scholarship*  
**Colleen McGlaughlin** and **Kent S. Schrad**

*Knowler Scholarship*  
**Kent S. Schrad**

*Principal Financial Group Foundation Scholarship*  
**Hing Wu**

*Towers Perrin Scholarship*  
**Jeffrey A. McClure**

*Harold W. Schloss Memorial Scholarship*  
**Pui Sai Lau**

**Charles and Eleanore Wilson Scholarships**  
**Bradley Becker, Bryan K. Benson, Tyler J. Biggs, Kimberly M. Cessna, Alexander W. Duran, Stephanie Fahy, Whitney Gerlich, Aaron Halbur, Myung Joo Kim, Alexander LeFevre, Jennifer Lingenfelter, Jeffrey A. McClure, Colleen McGlaughlin, Kyle Mulholland, Sang-Jin Park, Lindsey Scott, Kinsey K. Sloss, Peter J. Tigges, Seth Truka, Pamela M. Walz, Thaddeus Wasowicz, Nicholas P. Weber**

In addition to scholarships, the department refunded a total of \$22,790 to students passing CAS/SOA exams in 2006-07.

We are pleased to have so many outstanding students receiving scholarships and passing exams, just as we are grateful for the generous donations from corporations, alumni and friends that make these scholarships and exam refunds possible.

## Graduate Student Presentations

Throughout the year many of our graduate students present posters and papers at various national conferences. This is an important way to introduce student research and leadership within the department.

**Dai Feng**, Ph.D. candidate in Statistics, presented a poster at the 2007 useR! Conference in Ames, Iowa. The conference was held August 8-10. The title of his poster was "Misc3D—A Package to Draw 3D Graphs."

**Xiaoli Gao**, Ph.D. candidate in Statistics, gave a presentation at the 2007 ENAR Meeting in Atlanta, Georgia. The meeting was held March 11-14. The title for the presentation was "Analysis of DNA Copy Number Variations Using Penalized Least Absolute." This was presented with Professor Jian Huang.

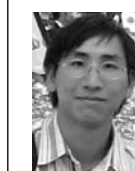
**Xuemiao (Samuel) Hao**, Ph.D. candidate in Statistics, gave a presentation at the Graduate Student Conference in Probability held at the University of Wisconsin-Madison in April 2007. The title of the presentation was "Heavy-tail Behavior of Discounted Aggregate Claims." In addition, Samuel gave a presentation at the 42nd Actuarial Research Conference at Robert Morris University in Pennsylvania, August 2007. The title of the presentation was "Subexponential Tail of Discounted Aggregate Claims." Both of these presentations were based on research with Professor Qihe Tang.

**Jung-Eun (Jasmine) Song**, Ph.D. candidate in Statistics, presented a poster at the 2007 useR! Conference in Ames, Iowa. The conference was held August 8-10. The title of her poster was "Bayesian Estimation of Curves or Surfaces."

## Ph.D. Graduates



**Subhashish Chakravarty** received his Ph.D. in Statistics in August 2007 under the direction of George Woodworth and Matthew Bogner. The title of his thesis was "Bayesian Surface Smoothing under Anisotropy." Dr. Chakravarty is currently a Visiting Assistant Professor in the Departments of Statistics and Actuarial Science and Economics at the University of Iowa.



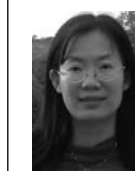
**Cheuk Yin Andrew Ng** received his Ph.D. in Statistics in May 2007 under the direction of Elias Shiu. The title of his thesis was "On Dual Insurance Risk Models." Dr. Ng is employed as an Assistant Professor in Finance at the Chinese University of Hong Kong.



**Peng Sun** received his Ph.D. in Statistics in December 2006 under the direction of John Geweke. The title of his thesis was "Bayesian Analysis and Applications of a Generalized Threshold Autoregressive Model." Dr. Sun is employed as a Biometrician at Merck & Company, Inc. in Pennsylvania.



**Huiliang Xie** received her Ph.D. in Statistics in May 2007 under the direction of Jian Huang. The title of her thesis was "Regression with Smoothly Clipped Absolute Deviation Penalty." Dr. Xie is employed as an Assistant Professor in Management Sciences at the University of Miami.



**Lili Zhao** received her Ph.D. in Statistics in December 2006 under the direction of George Woodworth. The title of her thesis was "Bayesian Decision-Theoretic Group Sequential Analysis with Survival Endpoints in Phase II Clinical Trials." Dr. Zhao is employed as a Statistician with BD, a medical technology company, in Maryland.





# The University of Iowa College of Liberal Arts and Sciences Department of Statistics and Actuarial Science

## HONOR ROLL OF CONTRIBUTORS

This honor roll gratefully recognizes graduates, faculty, and friends who contributed \$100 or more from July 1, 2006, through June 30, 2007, to the Department of Statistics and Actuarial Science through The University of Iowa Foundation, the preferred channel for private support of all areas of the University. Contributors are listed alphabetically.

The Presidents Club permanently recognizes those who make outright gift commitments of \$40,000 or more within a 10-year period and those pledging substantial deferred support to any area of the University. Corporations, foundations, and other organizations are recognized in The Presidents Club Associates. Members of The Presidents Club, the University's highest honor club for contributors, are recognized in bold type.

A (PC) follows the names of those who qualified for membership in the College of Liberal Arts and Sciences Dean's Club Patrons Circle by contributing \$2,500 or more to any area in the College of Liberal Arts and Sciences from July 1, 2006, through June 30, 2007. Contributors of \$1,000 through \$2,499 from July 1, 2006, through June 30, 2007 qualify for the College of Liberal Arts and Sciences Dean's Club, which is indicated by a (DC) following their names.

Ackerson, Frederic, Alexandria, Va.  
Africa, Mark D., Fairfax, Iowa  
Anlian, Edward, Santa Fe, N.M.  
De Arteaga, Carmen E., Palisades Park, N.J.  
Arteaga, Manuel, Palisades Park, N.J.  
Becker, Joseph L., Deerfield, Ill.  
Beekman, Jane M., Muncie, Ind.  
Beekman, John A., Muncie, Ind.  
Bentz, Dale F., Calabasas, Calif.  
Bentz, Judith Lee, Calabasas, Calif.  
Bosch, Catherine Calhoun, Roslindale, Mass.  
Bosch, Ronald J., Roslindale, Mass.

Botkin, Leroy V., Northbrook, Ill.  
Brackey, Donald G., Glenview, Ill.  
Breen, Christopher, Indianapolis, Ind.  
Breen, Yelitzia M., Indianapolis, Ind.  
Brooks, Roger K., Des Moines, Iowa (DC)  
Brumbach, John W., Atlanta, Ga.  
Brumbach, Marie T., Atlanta, Ga.  
Byrne, Ellen O'Brien, Oklahoma City, Okla.  
Byrne, Ronald J., Oklahoma City, Okla.  
Cain, Marti W., Amelia Island, Fla.  
Cain, Vern W., Amelia Island, Fla.  
Calderwood, Philip D., Pearland, Texas

Caldwell, Maxine K., Des Moines, Iowa  
Casualty Actuarial Society, Arlington, Va.  
Chen, Winnie Hsin-Wen, Louisville, Ky.  
Chrabaszcz, Edward J., Kenilworth, Ill. (DC)  
Christensen, Barbara M., Middleton, Wis.  
Christensen, John C., Middleton, Wis.  
Christenson, Eugene M., New Brighton, Minn.  
Christiansen, Christofer J., Ridgefield, Conn.  
Christiansen, Laurie Austin, Ridgefield, Conn.  
CIGNA Foundation, Philadelphia, Pa. (PC)  
Claypool, Bill R., Ankeny, Iowa (DC)  
Claypool, Karen V., Ankeny, Iowa (DC)

Cowman, Edward F., Freeport, Ill.  
Cowman, Judith A., Freeport, Ill.  
Crise, Jane A., Milwaukee, Wis.  
Crise, William K., Milwaukee, Wis.  
Demoney, N. Edwin, Arlington, Va. (DC)  
Demoney, Rosalie S., Arlington, Va. (DC)  
DePrenger, Herbert L., West Des Moines, Iowa  
DePrenger, L. Jeanne, West Des Moines, Iowa  
DeWitt, Jane E., Iowa City, Iowa  
Donahey, James R., Springfield, Va.  
Dorner, Colleen O., Indianapolis, Ind.  
Dorner, William W., Indianapolis, Ind.  
Driskell, Olga A., Sellersburg, Ind.  
Driskell, Richard G., Sellersburg, Ind.  
Dukes, Jean S., Western Springs, Ill.  
Dukes, Jeffery T., Western Springs, Ill.  
Du Mond, Barbara J. H., San Mateo, Calif.  
Du Mond, Charles E., San Mateo, Calif.  
Edge, Jana L., Normal, Ill.  
Edge, Orlyn P., Normal, Ill.  
Farmer, Thurston P., Jr., Green Valley, Ariz.  
Fishman, Diane, Clearwater, Fla.  
Fishman, Morris, Clearwater, Fla.  
Forbes, Leon D., West Simsbury, Conn.  
Forde, Luther O., Plymouth, Minn.  
Garfin, Louis, Oceanside, Calif.

Garrett, Christopher H., Marion, Iowa  
Gathers, Jeffrey L., Atlanta, Ga.  
Geiger, Diane Q., Des Moines, Iowa  
Geiger, Waldo F., Jr., Des Moines, Iowa  
Geweke, John F., Iowa City, Iowa  
Geweke, Lynne O., Iowa City, Iowa  
Gifford, Nicholas M., Pleasant Hill, Iowa  
Giles, Jeanne, Robins, Iowa  
Giles, Kevin, Robins, Iowa  
Glasgow, Carolyn H., Clearwater, Fla.  
Glasgow, William M., Clearwater, Fla.  
Goebel, Ralph H., Edina, Minn.  
Graf, Thomas J., Clive, Iowa  
Gray, Anthony R., Winter Park, Fla.  
Gray, Barbara Lacey, Winter Park, Fla.  
Greenberg, Norman G., Arlington, Va.  
Griffey, Denise M., Lenexa, Kan. (DC)  
Griffith, Steven L., Solon, Iowa  
Hale, Mark P., Jr., Iowa City, Iowa  
Hamilton, James R., Long Branch, N.J.  
Harding, John W., Arlington Heights, Ill.  
Hewett, John E., Columbia, Mo.  
Hickman, Margaret W., Madison, Wis. (DC)  
Hoffman, Kevin L., Savannah, Ga.  
Hoffman, Lorrie L., Savannah, Ga.  
Hogg, Ann E., Buena Vista, Colo. (DC)  
Hogg, Barbara J., Kenilworth, Ill. (DC)

Hogg, Robert V., Buena Vista, Colo. (DC)  
Holden, Douglas C., Portland, Ore.  
Homer, Charlene Redeker, Nitro, W. Va.  
Homer, John E., Nitro, W. Va.  
Howell, John F., Nashville, Tenn.  
Howell, Margaret H., Nashville, Tenn.  
Hunt, David L., New Canaan, Conn. (PC)  
Hutton, Edward L., Prescott Valley, Ariz.  
Johnson, James E., St. Paul, Minn. (PC)  
Jones, Donn B., Elkhorn, Neb.  
Jordan, George R., Jr., Houston, Texas  
Karsten, Orlo L., Jr., The Villages, Fla.  
Kellen, Michael L., Delafield, Wis.  
Kemble, James W., Eden Prairie, Minn.  
Kiernan, William J., Cos Cob, Conn.  
King, Patricia M., Little Rock, Ark.  
King, Russell L., Little Rock, Ark.  
Kinne, Katherine A., Teton Village, Wyo. (DC)  
Kinne, Morris Y., Teton Village, Wyo. (DC)  
Klinzman, Frank W., Redding, Conn.  
Knowling, Doug, Wildwood, Mo.  
Kraegel, Wilfred A., Mequon, Wis.  
Langlitz, Leon L., Lenexa, Kan. (DC)  
Larimer, Charles F., Chicago, Ill.  
Lazio, Jennifer L. W., Alexandria, Va. (PC)

Lazio, T. Joseph W., Alexandria, Va. (PC)  
Lenth, Russell V., Iowa City, Iowa  
Lin, Jennifer, New York, N.Y.  
Makowski, Carla A., Huntsville, Ala.  
Makowski, Gary G., Huntsville, Ala.  
Makuck, Brian D., Atlanta, Ga. (DC)  
Makuck, Laura B., Atlanta, Ga. (DC)  
Malmgren, Edward G., Jr., Charlotte, N.C.  
Maxey, E. James, Iowa City, Iowa  
Maxey, Shirley S., Iowa City, Iowa  
McCaw, John R., Garden Ridge, Texas  
McColum, Harold L., West Des Moines, Iowa  
McConnell, Cecilia M., Cedar Rapids, Iowa  
McMahon, Arthur M., Urbandale, Iowa  
McMahon, Patricia M., Urbandale, Iowa  
Meade, Jason D., Rocky Hill, Conn.  
Mortensen, Donna J., Medford, Ore.  
Mortensen, James M., Medford, Ore.  
Mowery, Brent M., McLean, Va.  
Nesbitt, Maxine L., Carmel, Ind.  
Nesbitt, William M., Carmel, Ind.  
Ng, Moh-Jee C., Rockville, Md.  
Ng, Tie-Hua, Rockville, Md.  
Northwestern Mutual Foundation, Milwaukee, Wis. (DC)  
Nunnikhoven, Kathleen S., Cordova, Tenn.  
Nunnikhoven, Thomas S., Cordova, Tenn.

O'Keefe, Jeanne M., Wildwood, Mo.  
Oldenkamp, John L., Fort Wayne, Ind.  
Oldenkamp, Julia A., Fort Wayne, Ind.  
Palmer, Eric P., Ellington, Conn. (DC)  
Parmenter, Neil A., Des Moines, Iowa  
Parsons, Van L., Alexandria, Va.  
Pearson, Rick, Mequon, Wis.  
Pearson, Susan L., Mequon, Wis.  
Pendergast, Jane, Iowa City, Iowa  
Petersen, Nancy S., Solon, Iowa  
Peterson, Ann M., Cincinnati, Ohio  
Peterson, Mel R., Cincinnati, Ohio  
Petesch, Paul J., Bellevue, Iowa  
Petro, John W., Kalamazoo, Mich.  
Petro, Joyce M., Kalamazoo, Mich.  
The Principal Financial Group Foundation, Inc., Des Moines, Iowa (PC)  
Prior, Linda R., Los Angeles, Calif.  
Prior, Richard J., Los Angeles, Calif.  
Rinderknecht, Richard W., Amelia Island, Fla.  
Rogers, Gerald S., Las Cruces, N.M. (DC)  
Rosky, Jacqueline Reed, Louisville, Ky.  
Rosky, Theodore S., Louisville, Ky.  
Ross, Paul D., Indianapolis, Ind.  
Rothmann, Mark D., Derwood, Md.  
Rothmann, Shiowjen Lee, Derwood, Md.  
Rugger, Barbara D., San Diego, Calif.

Ruhl, Janifer L., Carmel, Ind.  
Ruhl, Ronald F., Carmel, Ind.  
Sager, Thomas W., Austin, Texas  
Sandler, Geoffrey, Hillsdale, N.J.  
Sargent, Barbara T., Green Oaks, Ill.  
Sargent, Harold E., Green Oaks, Ill.  
Sconing, James A., Iowa City, Iowa  
Scott, Bradley J., Plymouth, Minn.  
Shao, Hwei-Chung, Mendham, N.J.  
Shinkwin, William, Milwaukee, Wis.  
Shiu, Elias S. W., Iowa City, Iowa  
Shope, Katherine R., Willow Street, Pa. (PC)  
D. W. Simpson & Company, Inc., Chicago, Ill. (DC)  
Spencer, James E., Dublin, Ohio  
Spencer, Nadine A., Dublin, Ohio  
Spirtas, Robert, Potomac, Md.  
Stentz, George T., St. Louis, Mo.  
Swanson, Mark A., Glen Carbon, Ill. (DC)  
Swanson, Shawn M., Glen Carbon, Ill. (DC)  
Tanis, Elaine B., Holland, Mich.  
Tanis, Elliot A., Holland, Mich.  
Taylor, Robert H., Solon, Iowa  
Thompson, Mark, Chicago, Ill.  
Towers Perrin, Chicago, Ill. (PC)  
Turnquist, Jack M., Dallas, Texas  
Tutty, Denise R., Des Moines, Iowa

Vandermyde, Scott D., St. Charles, Ill.  
Wagner, Margaret Liljedahl, Flat Rock, N.C.  
Wagner, Virgil D., Flat Rock, N.C.  
Wang, Ling-Ling, Buhler, Kan.  
Wegman, Edward J., Fairfax Station, Va.  
Wegman, Patricia Kadan, Fairfax Station, Va.  
Wilmesmeier, Barbara T., St. Cloud, Minn.  
Wilmesmeier, James M., St. Cloud, Minn.  
Wilson, Eleanore G., San Antonio, Texas (PC)  
Woodworth, Carrol H., Iowa City, Iowa (DC)  
Woodworth, George G., Iowa City, Iowa (DC)  
Yoder, Reginald C., Des Moines, Iowa (DC)  
Yoder, Roberta A., Des Moines, Iowa (DC)  
Young, Thomas M., Avila Beach, Calif.  
Yu, Grace T., Hartsdale, N.Y.  
Yu, Mark, Hartsdale, N.Y.

### The Department of Statistics and Actuarial Science Development Fund

Jeff Liebermann  
The University of Iowa Foundation  
Levitt Center for University Advancement  
P.O. Box 4550  
Iowa City, Iowa 52244-4550  
(319) 335-3305 or (800) 648-6973  
e-mail address: jeff-liebermann@uiowa.edu

# Invited SPEAKERS

## Fall 2006

**Jacob J. Oleson**  
Department of  
Biostatistics  
University of Iowa  
“Joint Spatio-Temporal  
Modeling of Low Inci-  
dence Cancers Sharing  
Common Risk Factors”

**Amy G. Froelich**  
Department of Statistics  
Iowa State University  
“Materials for the  
Assessment of  
Engaging Students in  
Statistical Discovery”

**Qihe Tang**  
Department of  
Statistics and Actuarial  
Science  
University of Iowa  
“On a Random Differ-  
ence Equation with  
Subexponential  
Innovations”

**Jun Zhu**  
Department of Statistics  
University of Wiscon-  
sin-Madison  
“Spatial-Temporal  
Modeling of Forest  
Gaps Generated by  
Colonization from  
Below- and Above-  
Ground Bark Beetle  
Species”

**Joseph B. Lang**  
Department of  
Statistics and  
Actuarial Science  
University of Iowa  
“Improved Confidence  
Intervals for  
Contingency Table  
Parameters”

**Joshua M. Tebbs**  
Department of Statistics  
University of South  
Carolina  
“Disease Detection and  
Prevalence Estimation  
Through Information  
Group Testing”

**Michael Taksar**  
Department of  
Mathematics  
University of  
Missouri-Columbia  
“Ruin Probability  
Minimization and  
Dividend Distribution  
Optimization in  
Diffusion Models”

**Sri Devi Duvvuri**  
Department of  
Marketing  
University of Iowa  
“A Bayesian Multi-Level  
Factor Analytic Model  
of Consumer Price  
Sensitivities Across  
Categories”

**Richard Dykstra**  
Department of  
Statistics and  
Actuarial Science  
University of Iowa  
“Brownian Motion  
Boundary Crossing  
Probabilities”

**Joseph E. Cavanaugh**  
Department of  
Biostatistics  
Department of  
Statistics and  
Actuarial Science  
University of Iowa  
“Discrepancy-Based  
Model Selection Crite-  
ria Using Validation”

**Petrutza Caragea**  
Department of Statistics  
Iowa State University  
“Covariates and Time  
in the Autologistic  
Model”

**Andrew Ho**  
Psychological and  
Quantitative  
Foundations  
University of Iowa  
“Describing Test Score  
Gains and Gaps:  
A Nonparametric  
Alternative to Popular  
Educational Statistics”

**Stuart Klugman**  
Department of  
Actuarial Science  
Drake University  
“The Actuary as  
Expert Witness”

**Kai Wang**  
Program in Public  
Health Genetics  
University of Iowa  
“A Statistical Test  
of Overdominance  
and/or Underdomi-  
nance with Application  
to Gene Expression  
Levels”

**Huiliang Xie**  
Ph.D. Candidate  
Department of Statistics  
and Actuarial Science  
University of Iowa  
“Extending SCAD-  
Penalized Regression  
to Accelerated Failure  
Time Models”

**Jiafeng Sun**  
Department of  
Actuarial Science,  
Risk Management,  
and Insurance  
University of  
Wisconsin-Madison  
“Heavy-Tailed  
Longitudinal Data  
Modeling Using  
Copulas”

**Arka Ghosh**  
Department of Statistics  
Iowa State University  
“Optimal Buffer Size  
for a Stochastic  
Processing Network  
with a Drift”

**Kate Cowles**  
Department of Statistics  
and Actuarial Science  
University of Iowa  
“Parallelizing MCMC  
for Bayesian Spatio-  
temporal Geostatistical  
Models”

**Rong Chen**  
NSF Program Director  
for Statistics  
Professor of  
Information and  
Decision Sciences  
University of  
Illinois-Chicago  
“Sequential Monte  
Carlo Methods and  
Their Applications:  
An Overview and  
Recent Developments”

**Lan Wang**  
School of Statistics  
University of Minnesota  
“Consistent Model  
Selection and Data-  
Driven Smooth Tests  
for Clustered Data”

**William Meeker**  
Department of Statistics  
Iowa State University  
“Using Accelerated  
Tests to Predict  
Warranty Returns”

**Wei Chen**  
Principal Financial  
Econometrician  
SAS Institute, Inc.  
“Tail Tales – Topics  
on Portfolio Risk  
Management”

**David Bates**  
Department of Finance  
University of Iowa  
“On Estimating and  
Filtering Time-  
Changed Levy  
Processes”

**Xuming He**  
Department of Statistics  
University of Illinois at  
Unbana-Champaign  
“Inference for Quantile  
Regression Models”

**John Manistre**  
AEGON USA, Inc.  
Cedar Rapids, Iowa  
“Tail Correlation –  
A Practitioner’s  
Perspective”

**Xian Zhou**  
Department of  
Applied Mathematics  
The Hong Kong Poly-  
technic University  
“Survival Analysis with  
Long-Term Survivors”

**Rick Chappell**  
Departments of Biosta-  
tistics and Medical  
Informatics & Statistics  
University of  
Wisconsin-Madison  
“Delta What? Choice  
of Outcome Scale in  
Non-Inferiority Trials”



# ALUMNI news

**Dan Nettleton**, PhD Statistics 1996. Dan is an associate professor of statistics at Iowa State University and has been named the Laurence H. Baker Endowed Chair in Biological Statistics.

**Paul Judd**, MS Actuarial Science 1984. Paul continues to teach at Drake University in Des Moines, Iowa. He teaches classes in the Department of Statistics and Actuarial Science. This past May, he received the Undergraduate Teacher of the Year Award for the entire business school as voted on by the students. Paul also volunteers on committees for the Society of Actuaries and is involved in their education and exam process. Paul is married to Linda and has four daughters, Emily, Ellen, Laura and Grace. He can be reached at paul.judd@drake.edu.

**Neil Parmenter**, BA Mathematical Sciences with an interest in Statistics and Actuarial Science 1960. Neil was recently recognized by the National Council of Youth Sports (NCYS) as the 2006 Hershey STRIVE Local Youth Sports Administrator of the Year. STRIVE stands for Sports, Teach, Respect, Initiative, Values and Excellence and this award honors adult leaders for their “heartfelt passion, enthusiastic commitment and contagious spirit to help kids succeed in youth sports activities.”

In addition to this very prestigious honor, Neil served as President of the Society of Actuaries from 2003-2004.

## In Memoriam

### Class of 1932

**Evelyn B. Kittlesby**  
(BA in Mathemat-  
ical Sciences, with an  
interest in Statistics and  
Actuarial science) died  
in January 2007.

### Class of 1934

**Catharine Mueller Weg-  
ner** (BA in Mathemat-  
ical Sciences, with an  
interest in Statistics and  
Actuarial science) died  
in December 2006.

**Charles F. Pestal** (BA in  
Mathematical Sciences,  
with an interest in  
Statistics and Actuarial  
science) died in July  
2007.

### Class of 1936

**Ralph P. Walker** (BA in  
Mathematical Sciences,  
with an interest in  
Statistics and Actuarial  
science) died in July  
2007.

### Class of 1940

**Frank Avery Haight**  
(MS in Mathematical  
Sciences, with an  
interest in Statistics  
and Actuarial science)  
died in April 2006.

### Class of 1944

**Irwin I. Kent** (BA in  
Mathematical Sciences,  
with an interest in  
Statistics and Actuarial  
science) died in  
February 2005.

### Class of 1947

**R. N. Houser** (BA in  
Mathematical Sciences,  
with an interest in  
Statistics and Actuarial  
science) died in  
March 2007.

### Class of 1948

**Madelyn B. Nutt**  
(BA in Mathematical  
Sciences, with an  
interest in Statistics  
and Actuarial science)  
died in January 2007.

### Class of 1950

**Charles M. Daniel**  
(MS in Mathematical  
Sciences, with an  
interest in Statistics  
and Actuarial science)  
died in March 2005.

### Class of 1951

**Frank H. Rice** (MS in  
Mathematical Sciences,  
with an interest in  
Statistics and Actuarial  
science) died in  
October 2006.

### Class of 1956

**Charles A. Wittenberg**  
(MS in Mathemat-  
ical Sciences, with an  
interest in Statistics and  
Actuarial science) died  
in September 2004.

### Class of 1957

**Alan C. Goddard** (MS  
in Mathematical  
Sciences, with an  
interest in Statistics  
and Actuarial science)  
died in November  
2006.

### Class of 1959

**Frederick R. Koeppling**  
(BA in Mathematical  
Sciences, with an  
interest in Statistics  
and Actuarial science)  
died in April 2007.

### Class of 1960

**Richard L. Bendsen**  
(MS in Mathemat-  
ical Sciences, with an  
interest in Statistics and  
Actuarial science) died  
in December 1995.

### Class of 1962

**Joseph M. Martin**  
(PhD in Mathemat-  
ical Sciences, with an  
interest in Statistics and  
Actuarial science)  
died in April 2007.

### Class of 1994

**John U. Weaver** (MS in  
Actuarial science) died  
in August 2004.



# Actuarial Exam **PASS RATES**



In September, our provost office asked us if we had data concerning the professional exam pass rates of our actuarial students. We wrote to the Society of Actuaries (SOA). They were very helpful and gathered the data for us. Because the SOA reduces its exam fees for full-time university students, our data are all exam candidates who reported to the SOA that they were full-time UI students. Not all of them were students in UI's actuarial programs. The actual data are posted on our website <http://www.stat.uiowa.edu/actuarial/UIowaPassRates.pdf>

Since May 2000, UI students wrote 1,395 SOA exams, resulting in 853 passes. This translates to an average pass rate of 61.1%. Because the corresponding average pass rate for all exam candidates is 41.7%, UI's average pass rate is 147% of the overall pass rate.

Many actuarial students would agree that Exam M/3, which contains life contingencies, is the most difficult one among all exams. Since May 2000, UI students wrote 313 M/3 exams, resulting in 211 passes. Thus, UI's average pass rate for Exam M/3 is 67.4%. Since the corresponding average pass rate for all Exam M/3 candidates is 40.8%, UI's Exam M/3 average pass rate is 165% of the overall pass rate.

We are very grateful that our students study hard and perform well in actuarial exams. However, there is a financial cost, because we refund our students their exam fees. In recent years, the SOA has raised its exam fees substantially. Even with fee reduction for full-time students, the total cost for the first five exams is \$985. Many of our students pass all five exams by the time they graduate.

67091/11-07

THE UNIVERSITY OF IOWA



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and Actuarial Science  
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Iowa City, IA 52242-1409