THE UNIVERSITY OF IOWA

STATISTICS & ACTUARIAL SCIENCE

Fall 2014

sampler

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.

This year we welcomed Ambrose Lo as a new Assistant Professor of Actuarial Science from the University of Hong Kong. We also added Visiting Assistant Professor Victor Chan from the University of Washington.

Professor Kate Cowles received her promotion to full professor, and The College of Liberal Arts appointed Professor Qihe Tang as an endowed Professor (F. Wendell Miller).

This year two Ph.D. students, Hao Chai and Xiangmin Zhang, will graduate from our program. Hao received his Ph.D. in August 2014 has taken a position as a Postdoctoral Associate in Public Health (Biostatistics) with the Yale School of Public Health in New Haven, Connecticut. Xiangmin successfully defended her Ph.D. thesis in October and will graduate in December, 2014. We also awarded 13 MS degrees and 26 BS degrees in statistics last year.

Our actuarial science program awarded 20 MS degrees and 19 BS degrees. Our students' pass rates on the SOA exams continue to be exceptional. In addition, 8 alumni became Fellows of the Society of Actuaries (FSA); 12 became Associates of the Society of Actuaries (ASA); and 1 alum became a Chartered Enterprise Risk Analysts (CERA). Additionally, 1 alum became a Fellow of the Casualty Actuarial Society (FCAS) and 8 additional became Associates of the Casualty Actuarial Society (ACAS).

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 2013-2014 academic year we spent more than $122,000 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!

Our department will celebrate our 50th anniversary April 24-25, 2015! All of the exciting details will be on our website soon!

I hope you will enjoy reading the news about our 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.

Best wishes,

Luke Tierney
Chair, Department of Statistics and Actuarial Science
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COLLEGE OF LIBERAL ARTS & SCIENCES

Faculty and Staff News

The department would like to welcome **Victor Chan** as a visiting instructor to our program for the 2014-15 academic year. Originally from Malaysia, Victor received his Ph.D. degree from Iowa State and so he is quite familiar with Iowa (and its climate). His research interests include statistics in sports and reliability and in his spare time, he enjoys jogging and hiking, as well as playing chess. Welcome Victor!

Kate Cowles continues her important role as Director of the University of Iowa's Geoinformatics for Environmental Energy Modeling and Prediction (GEEMaP) program, which welcomed six new graduate students this fall 2014, for a current cohort of thirteen trainees, two of whom are majoring in statistics. GEEMaP is in its third year of existence and encompasses seven departments, three colleges and eighteen faculty members.

Joyee Ghosh gave invited talks called "Bayesian variable selection in the presence of multicollinearity" at the University of Georgia and Iowa State University. She was the organizer and one of the speakers for the invited session "Advances in Bayesian Variable Selection" sponsored by the Objective Bayes Section at the ISBA World Meeting in Cancun, Mexico, in July 2014. She was also a special invited speaker at the 2014 IISA conference in Riverside, California. She received an NSA Young Investigator grant, "Efficient Bayesian Model Averaging for Linear and Generalized Linear Models," for which she is the principal investigator for the one-year period March 2014 through March 2015.
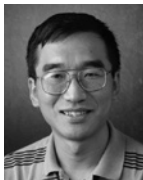
Jian Huang has had another busy and successful research year. In addition to collaborating on research projects developing methods and computational algorithms for analyzing high-dimensional data with a group of statisticians in the School of Statistics and Management at the Shanghai University of Finance and Economics, he gave several invited talks at schools around China. These included "Sparse estimation by support detection" at the Chinese Academy of Sciences in Beijing; "Some big data problems in biostatistics" at the 6th International Statistics Forum at Renmin University; and "Variable selection with false discovery rate control" at the Big Data and Statistics Workshop at Nankai University. Jian was also invited to give a short course on "Algorithms and Software for Fitting Sparse Regression Models" at the Workshop: Frontiers of High-dimensional Statistics at Fudan University in Shanghai.

The department is happy to introduce **Ambrose Lo** as our new Assistant Professor of Actuarial Science. During his PhD candidacy at the University of Hong Kong, Dr. Lo also earned his Fellowship in the Society of Actuaries (FSA) and his Chartered Enterprise Rick Analyst (CERA) titles. Ambrose is interested in dependence structures, risk measures and quantitative risk management. Outside of work, he enjoys playing badminton and cycling. Welcome aboard, Ambrose!

Aixin Tan gave birth to her second baby girl at the end of August 2014, but not before she delivered an invited talk "Estimates and standard errors for ratios of normalizing constants from multiple Markov chains" at the ISBIS and SLDM Meeting on Data Mining in Business and Industry in Durham, North Carolina, in June.

Qihe Tang was rewarded for his active role in dynamic research in actuarial science by being named an F. Wendell Professor by the college this year. This professorship was named for F. Wendell Miller, an attorney and farm manager from Rockwell City, Iowa, who died in 1995. The Miller Endowment Trust was established from the Miller estate, with interest and income from the trust divided equally between the University of Iowa and Iowa State University to encourage the advancement of academic endeavors.

Qihe traveled all over the world this past year giving invited talks, including "A probabilistic analysis of Chapter 7 and Chapter 11 of the U.S. bankruptcy code" at the International Conference on Actuarial Science and Related Fields at East China Normal University in Shanghai; "Extreme value theory for insurance and finance" at Georgia State University in Atlanta; "Multivariate regular variation in insurance and finance" at the Workshop on Recent Developments in Dependence Modelling with Applications in Finance and Insurance at Vrije Universiteit Brussel in Brussels, Belgium; and "Extreme value theory for insurance and finance" at the ACP Meeting on Extreme Values: Theory and Applications at the Katholieke Universiteit Leuven in Leuven, Belgium.

Qihe traveled to Samos, Greece, as well to present a contributed talk, "The sum-product structure as a mechanism for risk management" at the 8th Samos Conference in Actuarial Science and Finance at the University of the Aegean. He was also the chairman of the Scientific Committee.

Qihe also gave the keynote address, "The sum-product structure as a mechanism for risk management" at the 2nd Workshop on Heavy-tailed Models and their Applications at Soochow University in Suzhou, China.

Luke Tierney's active and final year as our DEO included travels to present a keynote address at the R/Finance Conference in Chicago, a talk at the Department of Statistics at Northwestern University, and a talk at the Directions of Statistical Computing meeting in Brixen, Italy.

Dale Zimmerman is a consultant on a National Institutes of Health grant titled "New statistical methods to handle spatial uncertainty in cancer risk estimation." He gave talks at the Department of Statistics at Virginia Tech University in March and at the Graybill Conference on Statistical Methods for Ecology in Fort Collins, Colorado, in September. Dale was also an external reviewer of the Department of Statistics at the University of Nebraska-Lincoln in fall 2013.

Our department was well represented at the Joint Statistical Meetings in Boston this year. **Rhonda DeCook, Russell Lenth, Luke Tierney, Dale Zimmerman, Hao Chai, Ryne VanKrevelen and Xiangmin Zhang** all attended and had a great time!

Selected Textbooks

Dale Zimmerman joined Robert V. Hogg and Elliot A. Tanis as a co-author on the ninth edition of their classic mathematical statistics textbook, "*Probability and Statistical Inference.*" (2015). Upper Saddle River, New Jersey: Pearson.

Selected Grants

Qihe Tang's newly awarded external grants include:

2014--2017: The National Science Foundation (NSF), "Collaborative Research: Modeling and Analyzing Extreme Risks in Insurance and Finance," PI (Co-PIs: Jose Blanchet and Henry Lam), $350,000

2014--2015: The Society of Actuaries (SOA), "Modeling and Analyzing Extreme Risks in Insurance," PI (Co-PIs: Jose H. Blanchet, Henry Lam and Zhongyi Yuan), $80,000

Jian Huang has also been continuing work on the following grants:

PI on NSF grant (DMS-1208225) "Constrained Group Selection and Structure Estimation in Semiparametric Models."

PI on UI subcontract from Yale University (NCI/NIH R01 CA 142774) "Novel Methods for Integrative Analysis of Cancer Genomic Data."

Selected Papers

Liu, J., **Huang, J.** and Ma, S. (2014). Integrative analysis of cancer diagnosis studies with composite penalization. *Scandinavia Journal of Statistics*, 41, 87-103.

Jiang, D. and **Huang, J.** (2014). Majorization minimization by coordinate descent for concave penalized generalized linear models. *Statistics and Computing*, 24, 871-883.

Jiang, D. and **Huang, J.** (2014). Concave 1-norm group selection. Accepted for publication by *Biostatistics.*

Breheny, P. and **Huang, J.** (2013). Group descent algorithms for nonconvex penalized linear and logistic regression models with grouped predictors. Accepted for publication by *Statistics and Computing.*

Liu, J., **Huang, J.** and Ma, S. (2013). Integrative analysis of multiple cancer genomic datasets under the heterogeneity model. *Statistics in Medicine*, 32, 3509-3021.

Liu, J., **Huang, J.** and Ma, S. (2013). Incorporating network structure in integrative analysis of cancer prognosis data. *Genetic Epidemiology*, 37, 173-183.

Li, B.; **Tang, Q.;** Zhou, X. A time-homogeneous diffusion model with tax. *Journal of Applied Probability* 50 (2013), no. 1, 195--207.

Tang, Q.; Yuan, Z. Asymptotic analysis of the loss given default in the presence of multivariate regular variation. *North American Actuarial Journal* 17 (2013), no. 3, 253--271.

Cheung, K. C.; Dhaene, J.; Lo, A.; **Tang, Q.** Reducing risk by merging counter-monotonic risks. *Insurance: Mathematics and Economics* 54 (2014), no. 1, 58--65.

Tang, Q.; Yuan, Z. Randomly weighted sums of subexponential random variables with application to capital allocation. *Extremes* 17 (2014), no. 3, 467--493.

Li, B.; **Tang, Q.;** Wang, L.; Zhou, X. Liquidation risk in the presence of Chapters 7 and 11 of the US bankruptcy code. *Journal of Financial Engineering* 1 (2014), no. 3, 1450023 (19 pages).

Tang, Q.; Yang, F. Extreme value analysis of the Haezendonck--Goovaerts risk measure with a general Young function. *Insurance: Mathematics and Economics* 59 (2014), to appear.

Li, J.; **Tang, Q**. Interplay of insurance and financial risks in a discrete-time model with strongly regular variation. *Bernoulli* (2014), to appear.

Feng, D., Liang, D., and **Tierney, L**., A unified Bayesian hierarchical model for MRI tissue classification. *Statistics in Medicine* 33, 1349--1368, 2013.

Xie, Y. and **Zimmerman, D.L.** (2014). Score and Wald tests for antedependence in categorical longitudinal data. *Journal of Biometrics and Biostatistics*, 5:188.

Som, N., Monestiesz, P., Ver Hoef, J.M., **Zimmerman, D.L.,** and Peterson, E.E. (2014). Spatial sampling on streams: General principles for inference on aquatic networks. *Environmetrics*, 25, 306-323.

Zimmerman, D.L. (2014). Comment on "The need for more emphasis on prediction: A non-denominational model-based approach" by D.A. Harville, *The American Statistician*, 68, 85-86.

3

student NEWS

Student Awards and Scholarships

Erin Walker

Our annual student awards were presented on April 24. The Allen T. Craig Award for outstanding teaching assistant was presented to **Erin Walker** (MS 2014).

Congrui Yi

The Henry L Rietz Award is presented to a Ph.D. student based upon their excellent performance on the Comprehensive Exam. This year's award winner is **Congrui Yi**.

For outstanding performance by a Ph.D. Actuarial Science program, **Rui Luan** won the Lloyd A. Knowler Award for Outstanding Achievement by a student in Actuarial Science.

We also presented several Robert H. Taylor Awards for academic achievement in Actuarial Science. This year's recipients are:

Robert H. Taylor Award in Actuarial Stochastics
Huan Zhang

Taylor-Craig Award for outstanding performance in 22S:174
2013-14 (Undergraduate) **Braden Hopkins**
2013-14 (Graduate) **Junga Seo**

Taylor-Cosby Award for outstanding performance in 22S:179/180
2013-14 (Undergraduate) **Dongyu Xu**
2013-14 (Graduate) **Xinlyu Gai**

Taylor-Knowler Award for outstanding performance in 22S:182
2013-14 (Undergraduate) **Zhaowei Zheng**
2013-14 (Graduate) **Meilin Liu**

Scholarships totaling $95,000 were awarded to several students in the 2014-15 academic year. Included among these were several named scholarships:

Transamerica Scholarship
2014-15 **Kenneth Clancy**

Nicholas Schlarmann

Knowler Scholarship
2014-15 **Nicholas Schlarmann**

Michael Hackbarth

Principal Financial Group Foundation Scholarship
2014-15 **Michael Hackbarth**

Harold W. Schloss Memorial Scholarship
2014-15 **Nicholas Schlarmann**

Dylan Schwers

DW Simpson Scholarship
2014-14 **Dylan Schwers**

Richard D. Pearson Scholarship
2014-15 **Michael Hackbarth**

Lok Hang Au, Sara Chen, Anthony Dagner, Mary Feng, Justin Gorecki, Joel Henderson, Cody King, Mitchell Kinney, Leah Klejch, Nicholas Schlarmann, Austin Swanson and Jared Westphal were selected and awarded scholarships from Charles E. and Eleanore G. Wilson Scholarship Fund for 2014-15. Charles Wilson (BA, 1941) attended The University of Iowa during the Depression only because of a scholarship. He was an actuary for 45 years. He established this fund because he wanted to give future students the same opportunity he had and to help the actuarial profession.

Andrea Harlan, Zhuozhi Huang, Francis Jo and Xinhe Wang, all undergraduate Statistics students, were presented with academic scholarships for fall 2014 semester for their excellent performance in the classroom.

A new scholarship named the **Richard D. Pearson Scholarship** was announced by The University of Iowa Foundation in October of 2013. Mr. Pearson received his B.A. degree in Statistics and Actuarial Science from The University of Iowa in 1973 and has been a loyal annual donor to the department. He retired from Towers Watson (formerly Towers Perrin) in Chicago, where he was an actuarial consultant.

In addition to scholarships, the department refunded a total of $19,320 to students passing CAS/SOA exams in 2014.

In addition to scholarships, the department allocated special awards which totaled $7,500 to students who performed at a high level in the classroom.

Ryne Van Krevelen, in his last year as a Ph.D. student was asked to teach Statistics and Society, one of our entry-level courses in statistics for the 2014-15 academic year. He is doing a great job and gaining valuable experience!

Ryne Van Krevelen

On March 29, 2014 many of our amazing students participated in the "Polar Plunge" where they took the plunge into the "icy" waters of Lake MacBride to raise money and awareness for Special Olympics in Iowa. They named their group "The Standard Deviates", and raised over $700! Thank you **Allie Bishop, Mitch Kinney, Charlie Rose, Michelle Gillin, Mike Mitsche, and Stephanie Kommes** for working together for a great cause and having a good time too!

Many of our students receive outside awards and personal recognition for their academic achievements. We are very proud of our amazing students!

Yemu Xu, was elected Presidents of the Actuarial Science Club for 2014. The other officers include: Vice President of Social Programming, **Qianya Sun**; Vice President of Media, **Nick Schlarmann**; Vice President of Finance, **Raymond Lei;** and Underclassman Ambassador, **Trent Stastney-Perez**.

Yemu Xu

The Phi Beta Kappa Society and the Alpha of Iowa Chapter has invited **Chenjing Cui, Mary Feng, Shuyi Lu, Colin Peterson and Dongyu Xu** to accept membership in Phi Beta Kappa in the spring of 2015.

Alexandria Bishop and **Giang Nguyen** are our Graduate Student Senators for 2014-15. Thank you to our past officers 2013-14 **Stephanie Kommes** and **Colin Lewis-Beck**!

Congratulations to the following undergraduate students who have been admitted into Actuarial Science in 2014!
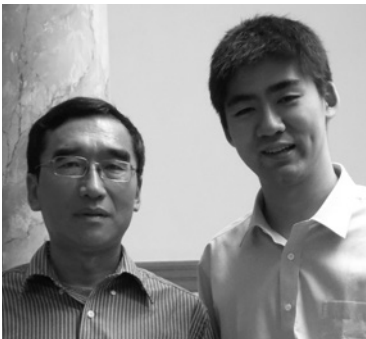
Admitted fall 2014:	Admitted spring 2014:
Kayla Berkowitz	Joo Yong Chong
John Crowley	Kenneth Clancy
Michael Hackbarth	Fan Dong
Chao Huang	Peng Gao
Euijoo Lee	Weichen Jin
Jeffrey Maxey	Jingfei Li
Joseph Peterson	Zihui Liu
Trent Stastny-Perez	Shuyi Lu
Austin Swanson	Boshuo Ma
Eric Tyner	Kyun Hoon Moon
Jingxian Yuan	Jared Westphal
Weitong Zhai	Yidai Yao

Ph.D. Graduates

Hao Chai received his Ph.D. in August 2014. His thesis was titled: "Statistical Inference in High Dimensional and AFT Models" and his advisor was Jian Huang. Ha has taken a Postdoctoral Associate position at Yale School of Public Health, in New Haven, CT.
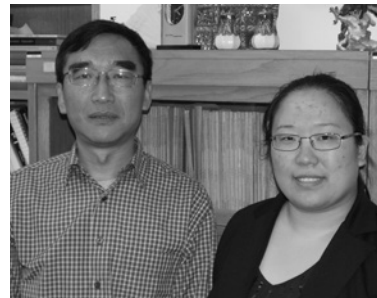
Xiangmin Zhang will receive her Ph.D. in December 2014. Her thesis was titled: "Non-convex Selection in Nonparametric Additive Models" and her advisor is Jian Huang.

Congratulations to Iowa alumni who became associates or fellows in the Society of Actuaries and the Casualty Actuarial Society!

SOCIETY OF ACTUARIES
Fellows (FSA)

December 2013
Shu-Hsin Liao (MS 2002)
Devin R. Wescott (BS 2009)

June 2014
Alexander LeFevre (BS 2010)
Nan Liu (MS 2010)
Yongchuan Liu (MS 2009)
Jing Pan (MS 2007)

August 2014
Alexandra Leanne Hyten (BS 2008 Mathematics)
Kai-Mo Liao (MS 2008)

SOCIETY OF ACTUARIES
Chartered Enterprise Risk Analysts (CERA)

December 2013
Nan Liu (MS 2010)

CASUALTY ACTUARIAL SOCIETY
Associates (ACAS)

Jun Hu (MS 2007)
Inmo Koo (MS 2007)
Yunqin Li (MS 2008)
Jenna Ann Shatek (BS 2009)
Chao Tan (MS 2009)
Jing Hong (MS 2000)
Lili Peng (MS 2009)
Barry M. Wilken (BS 2000)

CASUALTY ACTUARIAL SOCIETY
Fellow (FCAS)

Lin Ju (MS 2009)

SOCIETY OF ACTUARIES
Associates (ASA)

Society of Actuaries
Associates (ASA)

November 2013
Katherine R. Geller (BS 2009)
Yijun Liu (MS 2010)
Lindsey Marie Scott (BS 2008)
Kyle Sewright (BS 2012)

January 2014
Wenju Xu (BS 2012)

February 2014
Wei Zou Ang (BS 2009)

March 2014
Zhekan Wang (MS 2012)

April 2014
Yang Jing (BS 2012)

May 2014
Hao Luo (MS 2012)
Jack D. Pierce (BS 2010)

June 2014
Kelli Jo Kregel (BS 2011)

September 2014
Bingwei Deng (MS 2012)

We want to hear from YOU!

The Sampler newsletter is sent to alumni and friends of the Department of Statistics and Actuarial Science at The University of Iowa. As always, we like to hear from our alumni. Please drop us a line and let us know about recent promotions, job changes, professional designations, name changes, etc. Please email us at statistics@uiowa.edu or actuarial-science@uiowa.edu or send updates to us at 20 East Washington Street, 241 Schaeffer Hall, Iowa City, IA 52242-1409. Thank you!

Questions, comments, address changes and alumni news can be sent to:

Newsletter Updates
Department of Statistics and Actuarial Science
The University of Iowa
241 Schaeffer Hall
Iowa City, IA 52242-1409

Telephone: (319) 335-0712
FAX: (319) 335-3017
E-mail: statistics@uiowa.edu or actuarial-science@uiowa.edu

Please Print:

Name _____ (maiden name when appropriate) _____

Year Graduated from Iowa _____ Degree _____ Major _____

Professional Designations ❍ ASA   ❍ ACAS   ❍ FSA   ❍ FCAS   ❍ MAAA   ❍ Other

Address Update

Street _____

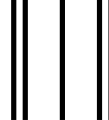City _____ State _____ ZIP _____

Home Phone _____ E-mail _____

Employer Update

Employer/company name _____

Employer address _____

News Update

What is happening in your life and career?

_____
_____
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May we share this **News Update** in our next department newsletter?   ❍ Yes   ❍ No

Newsletter Updates
Department of Statistics and Actuarial Science
The University of Iowa
241 Schaeffer Hall
Iowa City, IA 52242-1409

Invited SPEAKERS

Fall 2013

Sara Scheib
Sciences Research and Instruction Librarian
The University of Iowa Libraries – Your Gateway to Scholarship

Ting Zhang
Assistant Professor, University of Iowa Department of Statistics and Actuarial Science
Model Building for Partially Time-Varying Coefficient Models

Carol Severino
Professor and Director of the Writing Center and Writing Fellows Program at the University of Iowa
Writing Center Resources and the Challenges of Writing Statistics and Actuarial Science

Antonio Galvao
Professor, Department of Economics at the University of Iowa
Uniformly Semiparametric Efficient Estimation of Treatment Effects with a Continuous Treatment

Jacob Oleson
Associate Professor, Department of Biostatistics at the University of Iowa
A Path-Specific Approach to Spatial SEIR Modeling

Zhiyun Gong
Visiting Instructor at the University of Iowa in Statistics and Actuarial Science
Extreme Value Theory in Periodic Time Series

Kang Zhao
Assistant Professor, Department of Management Sciences, Tippie College of Business, University of Iowa
Sentiment influence and influential users in online health communities

Karin Dorman
Associate Professor, Department of Genetics, and Cell Biology at Iowa State University
Probabilistic Error-correction using Markov Inference in Error Reads

Yinxiao Huang
Assistant Professor, Department of Statistics, University of Illinois at Urbana-Champaign
Recursive Nonparametric Estimation for Time Series

Barbara Monaco
MS 2012, Statistician at 3M, Minneapolis, MN
Statistics, Data, and 3M

Spring 2014

Ambrose Lo
Department of Statistics and Actuarial Science, the University of Hong Kong
On Some Negative Dependence Structures and Their Applications

Erning Li
Visiting Assistant Professor
Functional Latent Feature Regression Analysis of Data with Longitudinal Covariate Processes and Measurement Errors

Elias Shiu
Principal Financial Group Foundation Professor
The University of Iowa Department of Statistics and Actuarial Science
Valuing equity-linked benefits in jump diffusion model

Aixin Tan
Assistant Professor, Department of Statistics and Actuarial Science, the University of Iowa
Estimates and Standard Errors for Ratios of Normalizing Constants from Multiple Markov Chains

Matt Bognar, Kate Cowles, and Luke Tierney
Faculty and Lecturers with the Department of Statistics and Actuarial Sciences, the University of Iowa.
A Brief Overview of Department High Performance Computing Resources

Fei Su
Predictive Senior Scientist, Verisk Innovative Analytics, San Francisco, CA
Predictive Modeling - Applications in property and casualty insurance industry

Chunming Zhang
Professor, University of Wisconsin at Madison
Estimation of the error auto-correlation matrix in semi-parametric model for brain fMRI data

Nick Street
Professor, Management Sciences at the University of Iowa
Large-Scale Correlation Search in Binary Data

Steven L. Scott,
A statistician primarily interested in the development and application of Bayesian methods. He received his PhD from the Harvard statistics department in 1998, and served on the faculty of USC's Marshall School of Business until 2007.
Bayes and Big Data: The Consensus Monte Carlo Algorithm

Jianqing Fan
Professor of Finance and Statistics and Chairman of the Department of Operation Research and Financial Engineering at Princeton University.
Statistical Challenges in Analysis of Big Data (Craig Lecture #1)
Homogeneity Pursuit (Craig Lecture #2)

Woosuk Kim
Visiting Assistant Professor
Statistical Inference on Dual Generalized Order Statistics for Burr Type III Distribution

undergraduate
SPOTLIGHT

Our Actuarial Science Club President for 2014 is Yemu Xu.

We asked him some random questions to get his responses on life beyond running a very active Actuarial Science Club!

What influenced you to come to The University of Iowa and study Actuarial Science?

I was introduced to The University of Iowa by China Bests Program through the Belin-Blank Honors Center. I, as well as 14 other students came here during the summer of our junior year of high school and stayed in Iowa City for 2 weeks. During that time, we took ACT and TOEFL (Test of English as a Second Language), took university level classes in several disciplines, and went through interviews. I was lucky enough to be offered early admission. By the time we left Iowa City, I figured that I fell in love with this beautiful midwestern town. So I looked no further and accepted the offer. I chose to study Actuarial Science here not only because our program is top-ranked in the nation, and that we have world-recognized faculties, but also due to the fact that Actuarial Science is a combination of quantitative methods and business acumen. I was a little lost and didn't know what to expect during my first year in the program, but the further I go down this this road, the better I feel about my choice.

Have you participated in internships, and if so with whom?

This past summer I interned with Fidelity Investments at their Benefits Consulting office in Chicago. I got incredible level of exposure in both Defined Benefit and Defined Contribution plans. What I love the most is the office culture and the people I worked with.

What were some of the highlights (activities, experiences) while a student at Iowa?

Extracurricular experience is a crucial part of both four-year college life and long-term personal development, to me.

I founded my own student organization, Chinese in Iowa City, in my sophomore year. This organization aims to get Chinese students involved with Iowa City community through community service and cultural exchange. I also volunteered at the Wild Bill coffee shop in my freshman year. There I had my first cookie baking experience. Being a Resident Assistant is also a really fun and eye-opening experience for me. I was able to further develop my communication skill and become life-long friends with lots of amazing people. One thing I especially recommend doing is to become a peer career advisor at Pomerantz Career Center, where I was able to be immersed with great professional and career-related development opportunities. These skills later on proved to be extremely helpful and valuable in job hunting.

Anything else you would like to share?

In my opinion, when it comes to employment, leadership, communication skills and being able to work with team members are three single most important soft skills employers are looking for from college graduates.

Really, getting the most out of your college life often comes down to getting out of your comfort zone. If you do like something, persuade yourself to go after it, no matter how time-consuming it might look like, or how ridiculously unrelated it is to what are studying. Granted, grade point average is important and is a quick measure of your intelligence when your future employer look at your resume, but it's definitely not all of your college life. Trust me, when you look back four years later, you will be able to connect every piece of your past experience together and be grateful about the decision you made for yourself.

alumni
SPOTLIGHT

Aaron Christ is Brewery Systems Analyst, Denali Brewing Company, Talkeetna, Alaska. Aaron grew up in Iowa City and received several degrees from the University of Iowa, including his Ph.D. in 2003. His Ph.D. thesis, entitled "An Animal Model Incorporating Resource Selection and Home Range," resulted from research supported by a contract between Professor Zimmerman and the Alaska Department of Fish and Game. Upon graduation he took a job as a biometrician with the Alaska Department of Fish and Game in Anchorage, Alaska.

Why did you pursue a PhD in Statistics?

I was working towards an MS in Computer Science, and happened to take a stat class that was challenging, but piqued my interest. I went in for a chat with Tim Robertson to get advice on another course that would be an appropriate elective, and he made me an offer I couldn't refuse. The next semester I was simultaneously playing catch up in math stat and teaching undergraduate classes.

Did you have any favorite classes/professors/memories in the Stat Dept. at Iowa? If so, which/who?

This is such a hard one to answer, because there were so many classes and professors that I enjoyed. In fact, I'm having a hard time thinking of one that I didn't. I certainly couldn't have made it without Dick Dykstra helping me build a strong foundation. It's hard not to recall the fun I had with Bob Hogg–I never took a class from him per-se, but was lucky to help him on a couple projects.

Which classes prepared you best for your career up to this point?

As I've spent the last decade as a consulting statistician, I have to say that the best preparation is a strong foundation in math stat. There are always new methods and tricks to learn, but without a strong foundation it's hard to really understand the reasons why they do or don't work. There were also many times that I simply had to start from scratch to build the tools I needed to answer the question at hand.

What was your first job, how did you get it, and what were your main statistical activities/accomplishments in it?

Setting aside the consulting I did while still in grad school, my first full time job was as a Biometrician for the Alaska Dept. of Fish & Game, who happened to fund most of my PhD studies. Basically, I was a consultant to departmental biologists so I helped design studies and analyze the data they were collecting. Of course, one big bonus was getting out and helping collect the data. It led me to corners of Alaska that I would never have seen otherwise.

What led you to switch careers? Describe your new position.

After more than ten years at ADF&G, I decided I wanted to try different challenges for the next ten. My success as a homebrewer got me noticed in the brewing community, and recently a brewmaster friend realized how someone with my background could really help their rapidly growing business.

Describe how you anticipate using statistics in the future in this position. What are your career goals now?

I've only been in this position for a couple months, so I'm still discovering all the ways I'll be helping. It will be a lot of consulting, but I'll generally be the one setting up and collecting the data for analyses. There isn't an area in the brewery that can't benefit from statistics: quality control, process optimization, sensory/tasting analyses, lab assays, etc. I can't imagine I'll come up with anything as fundamental as Gosset, but we do make an incredibly tasty stout!

Do you use any special recipes or special ingredients?

We do, however, have a few beers that are not the usual fare. We just put out a wheat beer using local wild blueberries, as well as a brown ale spiced with Sri Lankan curry. Perhaps the craziest sounding one is a saison with caraway and toasted onion, but the flavor is much more subtle than one might think.

What hobbies, etc. do you like to do in your spare time in Alaska?

Right now my 5 year old is my hobby. We like to do just about anything outside, so it depends on the season. The lake out back is just about frozen solid, and we'll be skiing, skating, and curling out there soon. The summer months bring biking, hiking, rafting, and a host of other activities. There's always something fun to get out and do, and rediscovering the world through the eyes of a child is priceless.

academic NEWS

The Computer Science, Mathematics and Statistics Departments are offering a new **Certificate on Big Data Analysis**. Big Data analysis has been in high demand lately by employers and it is good practical experience. The Certificate requires 21 credit hours, but 6 can count for both your major and certificate, more information about the Certificate can be found on our website!

BS/MS Dual-degree in Statistics; a NEW Combined Degree Program. The department will start accepting applications to its new 3+2 combined BS/MS program in Statistics in spring of 2015, and the program will formally start in fall 2015. Eligible students that are admitted to the program will complete the requirements for both a BS and an MS in 5 years. Though a BS in Statistics provides numerous career opportunities, the BS/MS dual degree program can provide students with an expanded skill set beyond the BS with a savings of approximately one year of time compared to the completely separated BS and MS degrees. The department is excited to offer this new opportunity to students.

The second annual **Actuarial Science, Insurance & Risk Management** Fair was held on October 1, 2014. Over thirty companies came to meet our students! This fair was phenomenal! The employer feedback was that it was a great venue, great number of employers, smooth program and the volunteers were helpful especially with unloading and clean-up! Thank you student volunteers and thank you to all of the companies that came! Our event next year will be held on September 30, 2015!

The Society of Actuaries (SOA) sent a team of three actuaries to visit the University of Iowa on November 10 and 11 for the purpose of renewing our **Center of Actuarial Excellence** (CAE) designation for another five years.
Here some facts that may interest you.

- The University of Iowa has the second oldest actuarial program in the USA, with its first actuarial course taught in 1902.
- Five past presidents of the SOA and one past president of the Casualty Actuarial Society studied actuarial science at the University of Iowa.
- At least 205 of all new Fellows of The Society of Actuaries (FSA) from 2000 to 2013 are graduates of The University of Iowa.
- In these fourteen years, the total number of new FSA's is 8939. Thus, Iowa has produced at least 2.3% of all new FSA's.
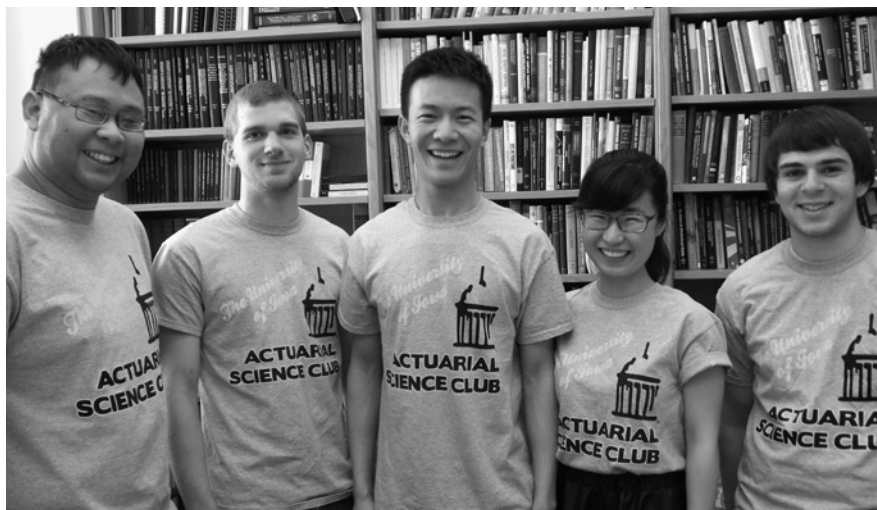
In Memoriam

We mourn the loss of Kathryn Chaloner who passed away on October 19 surrounded by her family. She was 60. Kathryn was a professor and head of the Department of Biostatistics at the University of Iowa. Kathryn is survived by her husband Luke Tierney, her sons Graham and Patrick, her sister Deborah, and her brother Christopher.

Kathryn was an accomplished researcher, teacher, and mentor. She advanced the study of HIV/AIDS and Bayesian statistics while simultaneously improving the faculty and student body at the University by advocating for the inclusion of underrepresented groups. The University of Iowa gave her the Diversity Catalyst Award in "recognition of innovative and distinctive efforts to enhance diversity and inclusion." She also received national recognition for her efforts. At the 2014 Joint Statistical Meetings, she received the 2014 Elizabeh L. Scott Award.

The award citation reads: "for her commitment and success in developing programs to encourage and facilitate women to undertake careers in statistics; for extensive mentoring of women students and young faculty; for work to identify and remove inequities in employment for under-represented components of the profession; and for serving as a role model, balancing work and family while excelling as a teacher, researcher and academic administrator."

A memorial fund has been established in honor of Kathryn Chaloner through the University of Iowa Foundation to support underrepresented minority students in the College of Public Health Department of Biostatistics. Contributions to this fund can be sent to: Kathryn Chaloner Student Scholarship Fund, UI Foundation, P.O. Box 4550, Iowa City, IA 52244-4550.

Class of 1940
Mr. James S. McCollum
(MS Mathematical Sciences) died July 2014.

Class of 1948
Mr. Paul E. Sarnoff
(BA Mathematical Sciences) died March 2012
Mr. Leroy V. Botkin
(BA Mathematical Sciences) died March 2014

Class of 1949
Mr. Henry F. Scheig
(MS in Mathematical Science) died in February 2014

Class of 1950
Mrs. Jean Eckhardt Cross
(MA in Mathematical Science) died in April 2014

Class of 1951
Dr. Christopher Chukemeka Moda (MS Mathematical Sciences) died May 2012

Class of 1952
Mr. Herbert L. DePrenger
(MS Mathematical Sciences) died February 2014.

Class of 1958
Mr. Richard J. Galbo
(BA Mathematical Sciences) died December 2013
Rev. John C. Friedell
(MS Mathematical Sciences) died November 2013

Class of 1960
Mr. Richard Willey
(BA Mathematical Sciences) died July 2014.

Class of 1962
Mr. Michael A. Logan
(MS Mathematical Sciences) died February 2014

Class of 1967
Dr. Gerald L. Sievers
(PhD Mathematical Sciences) died September 2014

Class of 1976
Mr. Kenneth W. VanDruff
(MS in Mathematical Statistics) died May 2012.

other NEWS

Semi-Centennial Symposium

The University of Iowa Department of Statistics and Actuarial Science invites you to reconnect with campus and former classmates for our 50th-year anniversary celebration **April 24-25, 2015**. We'll take a look at the past and see how we're set to tackle the future. Make plans today to return to Iowa City for events. For information and registration, visit our web site http://www.stat.uiowa.edu.

50 years

Statistics and Actuarial Science

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THE UNIVERSITY OF IOWA

In July, the University of Hong Kong hosted the 5th International Gerber-Shiu Workshop in honor of Professor **Elias Shiu** on the occasion of his 65th birthday. Several alumni, Jae Youn Ahn (Ph.D. 2012), Bangwon Ko (Ph.D. 2008), Hangsuck Lee (Ph.D. 2002), Bin Li (Ph.D. 2013), Andrew Ng (Ph.D. 2007), and Yan Wu (M.S. 2004), also attended, as well as Professors Sheldon Lin, Ambrose Lo, and Qihe Tang.

Welcome to our graduate class of 2016!

John Brindley, Lin Cao, Suyue Chen, Will Claypool, Shoutai Ding, Luke Gude, Wei Han, Junfei Hu, Jiao Lei, Haoming Li, Tenghe Li, Weijuan Luo, Liyun Ma, Xiaocen Meng, Taylor Parker, Ke Ren, Xinxin Ren, Zongsheng Sun, Cong Wang, Tao Wang, Tianhan Wang, Xu Wang, Savana Weller, Haoyang Wu, Xiao Xie, Yunlu Zhao, Yi Zheng, Qin Zhi, and Xiaofan Zhuang. (In alphabetical order).

Zachary Bales, Guo Can, Emily Eck, Dirk Hugen, Yunju Im, Sak Lee, Xiaotong Li, Zhijiang Liu, Cunxian Ma, Steven Manning, Jin Meng, Giang Nguyen, Reid Ronnander, Siyang Tao, Thanh Tran, Wenda Tu, Sontag Wan, Sheng Wang, and Tyler Zemla. (In alphabetical order).

Find us on Facebook!
Remember you can now find us on Facebook! Friend us at: University of Iowa Department of Statistics and Actuarial Science
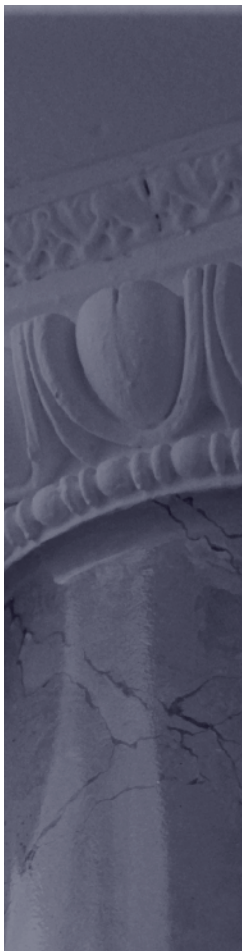
Find us on Twitter!
@UIOWAStatActSci is the official Twitter account for the Department of Statistics and Actuarial Science at The University of Iowa.

THE UNIVERSITY OF IOWA

STATISTICS & ACTUARIAL SCIENCE

sampler

Department of Statistics and Actuarial Science
241 Schaeffer Hall
Iowa City, IA 52242-1409

HOW YOU CAN HELP...

Many of you have been very generous in the past by supporting our students with your charitable donations. We are very appreciative of your support as it allows us to help many gifted and talented students to achieve their academic goals. Your gift to the Department of Statistics and Actuarial Science benefits education and research!

To make a contribution, go the Department's online gift web site at:

http://www.givetoiowa.org/2015A599

Thank you; your gifts to the Department of Statistics and Actuarial Science
are greatly appreciated!

Reminders:

- Gifts to the **UI Foundation**, the channel preferred by The University of Iowa for private support, qualify as charitable contributions to an IRC, Sec.501(c)(3) organization for federal income, estate, and gift tax purposes.

- You can become a member of the College of Liberal Arts and Sciences Dean's Club with gift support of $1,000 or more during the fiscal year July 1-June 30 to the Department of Statistics and Actuarial Science Development fund or any other are of the College. Gift support totaling $2,500 or more will qualify you for membership in the **Patrons Circle of Dean's Club**, designated to recognize the College's most generous benefactors.