BCASA NEWSLETTER

Boston Chapter of the American Statistical Association

Serving
Maine, Massachusetts, New Hampshire, Rhode Island, and Vermont

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Homepage: http://www.amstat.org/chapters/boston

E-Mail: BostonChapterASA@gmail.com

SCHEDULED EVENTS		
Wednesday, November 14, 2012	Virtual Analytics Symposium	Waltham, MA
Monday, December 10, 2012	Evening Lecture Series	Boston, MA

Event schedule at the chapter website: http://www.amstat.org/chapters/boston

Detailed announcements appear later in this newsletter. All events are announced in advance to members on our email list. We are currently planning events for the coming year. If you have suggestions please contact Program Chair John McKenzie, mckenzie@babson.edu.

VIRTUAL ANALYTICS SYMPOSIUM

Is there an overuse of computed tomography scanning of patients in US hospitals?

Welcoming remarks by: Mingfei Li, Bentley University

A review of the evidence by mining the Medicare claims database
Radiologists claim that performing two or more CT (Computed Tomography) scans in succession is rarely necessary, yet the practice of multiple CT scanning of patients during the same visit has continued in recent years. This talk discusses how to use the Medicare claims database to review the evidence and identify factors that contribute to this practice. The results corroborate with previous policy studies in concluding that hospitals can and should do more to modify physician behavior by implementing new protocols and to monitor the administration of multiple CT scans. The results also warrant a potential investigation of similar European databases.

Date: Wednesday, November 14, 2012

Time: Reception: 3:15 pm; Talk: 4:00 pm

Location: SMITH 122: http://about.bentley.edu/directions
                   or on-line: http://atcweb.bentley.edu/conferences/virtualanalytics/?page_id=57

RSVP: dhaughton@bentley.edu

Speaker bios:

Fotios Kokkotos, Ph.D., PStat®
Partner – Head of Advanced Analytics, Trinity Partners

Dr. Fotios Kokkotos is an accredited professional statistician (PStat®) by the American Statistical Association with 20 years of experience in statistical consulting. Dr. Kokkotos specializes in the analysis of massive and complex health care datasets using sophisticated statistical techniques. Dr. Kokkotos has a wide range of experience in many areas of statistics, including but not limited to modeling patient health outcomes, sampling theory, survey designs, statistical modeling and forecasting, statistical computing, categorical data analysis, nonparametric statistics, stochastic processes, time series and mathematical finance. His current research interests are the application of statistics, data mining and statistical computing in efficiently exploring and integrating very large databases under the constraints of shared distributed memory and concurrent programming algorithms. Dr. Kokkotos has been the author and reviewer of numerous articles and poster presentations in many scientific journals and conferences.

Prior to joining Trinity Partners, Dr. Kokkotos held the position of senior statistician at the global statistics practice of PricewaterhouseCoopers LLP, where he provided statistical support to clients from various industry sectors that included life sciences, financial services, telecommunications and consumer products. Dr. Kokkotos has also been an adjunct faculty member of statistics at the American University in Washington, D.C. Dr. Kokkotos is a long time member of the American Statistical Association, the American Mathematical Society, the Mathematical Association of America, and the International Society for Pharmacoeconomics and Outcomes Research. Dr. Kokkotos obtained a doctorate degree in mathematical statistics from The American University.

Grace Xuan Dong
Associate Statistician, Trinity Partners

Grace Xuan Dong is an Associate Statistician at Trinity Partners, a leading life sciences consulting firm that provides strategic and tactical insights to clients worldwide. As a statistician, she is responsible for providing consulting and strategic support to clients by offering market sizing, market research, and data analysis using statistical techniques. Prior to joining Trinity, Grace worked as a consultant at Boehringer Ingelheim. Grace holds a master's degree in Applied Statistics from Cornell University.

EVENING LECTURE SERIES

Statistical Analysis of Network Data

Eric Kolaczyk

Professor of Statistics and Director of the Program in Statistics
Department of Mathematics and Statistics
Boston University

Date: Monday, December 10, 2012

Time: Informal Reception with Snacks: 6:30 pm; Presentation: 7:00 pm

Location: College of Arts and Sciences (CAS) 200 and 211,
725 Commonwealth Avenue, Boston University, Boston, MA

Site Info: http://www.bu.edu/maps/
(Enter College of Arts and Sciences and click on Parking Lots and T Stops.)

Cost: Informal Reception and Presentation: free

Co-Sponsor: BOSTON INFORMS: http://boston.chapter.informs.org

Abstract

Over the past decade, the study of so-called "complex networks" - that is, network-based representations of complex systems - has taken the sciences by storm. Researchers from biology to physics, from economics to mathematics, and from computer science to sociology, are more and more involved with the collection, modeling and analysis of network-indexed data. With this enthusiastic embrace of networks across the disciplines comes a multitude of statistical challenges of all sorts - many of them decidedly non-trivial. In this talk, we will cover a brief overview of some of the foundations common to the statistical analysis of network data across the disciplines, from a statistical perspective, in the context of topics like network summary and visualization, network sampling, network modeling and inference, and network processes. Concepts will be illustrated drawing on examples from bioinformatics, computer network traffic analysis, neuroscience, and social networks.

Speaker Biography

Eric Kolaczyk is Professor of Statistics, and Director of the Program in Statistics, in the Department of Mathematics and Statistics at Boston University, where he also is an affiliated faculty member in the Program in Bioinformatics, the Program in Neuroscience, and the Division of Systems Engineering. He was a faculty member in the Department of Statistics at the University of Chicago. In addition, he has been a visiting faculty at Harvard University, the Universite de Paris VII, and l'Ecole Nationale de la Statistique et de l'Administration Economique (ENSAE) in Paris. Prof. Kolaczyk's main research interests currently revolve around the statistical analysis of network-indexed data. In 2009 he authored a Springer book, *Statistical Analysis of Network Data: Methods and Models*. Prior to his working in the area of networks, Prof. Kolaczyk spent a decade working on statistical multi-scale modeling. He is currently an associate editor of the Journal of the American Statistical Association. He is an elected fellow of the American Statistical Association (ASA), an elected senior member of the Institute for Electrical and Electronics Engineers (IEEE), and an elected member of the International Statistical Institute (ISI). He earned an M.S. and a Ph.D. in Statistics from Stanford and a B.S. in mathematics from the University of Chicago.

NEWS AND ANNOUNCEMENTS

President's Report

It's a good bet that if you're reading this newsletter, you already know that 2013 is the International Year of Statistics. It's also a good bet that you will be reminded of this repeatedly over the next year.

Many organizations have signed on to be part of this celebration through the web site at http://www.statistics2013.org/. If you look, you will see that the Boston Chapter is among them. The list appears to include most ASA chapters and sections, as well as many professional societies, universities, businesses, and government organizations. I'm especially pleased to see that eight secondary schools from our region have signed on, including our frequent host Buckingham Browne & Nichols.

The instructions make it clear that signup "creates no obligation." Nevertheless, I expect us to try to reflect this theme in our program to some extent. Stay tuned for that.

Then, as we leave 2013, we will enter the 175th anniversary year of the ASA. Appropriately, that celebration will take place in Boston where the ASA began in November of 1839.

I look forward to celebrating these two special years with you.

Tom Lane

BCASA Member Received Ziegler Award

Herbert Weisberg received the Ziegler Award for 2011 from Technometrics for his book *Bias and Causation*. The award was presented at the Joint Statistical Meetings in August, 2011.

Congratulations Herb!

Pickard Video

A video of the Harvard Pickard Memorial Lecture by Hans Rosling (details in the previous newsletter) is available at http://www.youtube.com/watch?v=SyHycq5GZaY.

Mu Sigma Rho

It's not too early to start thinking about your outstanding statistics students and considering nominating them for membership in Mu Sigma Rho. Both undergraduate and graduate students can be nominated. Information can be found at: http://math.smith.edu/~nhorton/msr.html or by contacting Liam O'Brien at lobrien@colby.edu. Although the deadline isn't until March 1st, 2013, nominations are accepted anytime.

BCASA Planning Committee

The BCASA Planning Committee meets about once every six weeks. Please join us and have an impact on chapter events and activities. Dinner is provided. For more information contact Chapter President Tom Lane, tlane@alum.mit.edu.

OTHER LOCAL EVENTS

Annual Winter Party and Potluck Dinner

Save the date. We have tentatively scheduled our annual party for the evening of Saturday, January 26. We expect to enjoy the hospitality of MathWorks in Natick, just as we did last year. More details to follow in the January newsletter, on the web site, and on our e-mail announcement list.

BCASA Retreat

A retreat is defined as a single or multi-day offsite meeting to discuss strategy, build stronger teams, and formulate goals. The BCASA will hold such a retreat in early 2013 in the greater Boston area. Among the items to be discussed will be Chapter events in 2013 for the International Year of Statistics and in 2014 to celebrate the 175th Anniversary of the American Statistical Association. Members interested in participating should contact John McKenzie at mckenzie@babson.edu.

Boston Meetings

The following three annual meetings will take place in Boston during 2013:

- The American Association for the Advancement of Science, February 14-18. For more information, please visit http://www.aaas.org/meetings/2013/.
- 34th Annual Meeting of the Society for Clinical Trials, May 19-22. For more information, please visit http://www.sctweb.org/public/meetings/2013/home.cfm.
- 49th Annual Meeting of the Drug Information Association, June 23-27. For more information, please visit http://www.diahome.org/en/Meetings-and-Training/Find-Meetings-and-Training/Meeting-Details.aspx?ProductID=30075&EventType=Annual%20Meeting

CUPPLES AWARD

L. Adrienne Cupples Award for Excellence in Teaching, Research, and Service in Biostatistics
Boston University School of Public Health, Department of Biostatistics

Purpose of the Award
This annual award recognizes a biostatistician whose academic achievements reflect the contributions to teaching, research, and service exemplified by Professor L. Adrienne Cupples. Dr. Cupples joined the faculty at the Boston University School of Public Health (BUSPH) in 1981 and later served as founding Chair of the Department of Biostatistics and Co-Executive Director of the Graduate Program in Biostatistics. During her tenure at BUSPH, she has advanced the field of biostatistics through extensive publications in major journals and book chapters on collaborative and methodological research, development and effective teaching of a wide range of biostatistics courses, and mentorship of numerous graduate students and faculty.

Eligibility and Nominations
To be eligible, the nominee must be an internationally recognized statistician/biostatistician who have made significant contributions to the statistical sciences through teaching, research, and service, and who will be willing to deliver a lecture at the award ceremony held in the Department of Biostatistics at Boston University on April 4th, 2013.

Nominations should include the nominee's name and contact information, rationale for the nomination not exceeding 2 pages in length, and the nominee's curriculum vitae. Nominations may be made by faculty, collaborators, students, or staff working with or familiar with the work of the nominee. Nominations will be accepted through November 15, 2012 and the winner will be notified by December 1, 2012.

Please send nominations via e-mail to:

> Lisa M. Sullivan, PhD
> Associate Dean for Education
> Professor and Chair, Department of Biostatistics
> lsull@bu.edu

Selection Criteria
Criteria for the award include, but are not limited to, excellence in the following areas:
- Biostatistics education (teaching, curriculum design, course development)
- Collaborative or methodological biostatistical research
- Service to the profession
- Student and faculty mentoring

Award Selection Committee
The Award Selection Committee will be comprised of eight members, six members of the faculty of the Boston University Department of Biostatistics representing varying areas of expertise and faculty rank and two student members currently enrolled in the graduate program in Biostatistics at Boston University.

Winners
Winners of the award will receive a $1000 honorarium, and all expenses to attend and present at the Boston University Department of Biostatistics at an Annual Award Day, generally held on the first Thursday in April. Faculty, staff and students interested in biostatistics from the Boston area will be invited to the presentation given by the Cupples' Award recipient.

http://www.sph.bu.edu/CupplesAward

JOB OPPORTUNITIES

AIR Worldwide

Research Scientist/Statistician

Position Description:
AIR Worldwide is currently seeking a Research Scientist/Statistician in its headquarters located at 131Dartmouth Street in Boston. AIR Worldwide is the leader in risk assessment related to natural hazards such as hurricanes, severe thunderstorms, earthquakes, and wildfires. Other application areas include modeling of risk related to crop failures, pandemic flu outbreaks, mortality risk, longevity risk, and manmade hazards such as terrorism. This position is located in AIR's Research and Modeling Group. Key responsibilities and requirements are listed below.

Key Responsibilities:
- Development and enhancement of natural hazards risk assessment tools related to tropical cyclones, severe thunderstorms, wildfires, and other natural hazards
- Develop computer code and run Monte Carlo simulations of natural hazards; Perform validation and verification of model output, including loss estimates associated with individual perils; Evaluate and quantify the uncertainty associated with model output; Implement the modeling methodology over a wide range of spatial scales
- Contribute to the development of a model to assess longevity risk
- Participate in client studies and consulting projects; Perform client presentations and respond to client questions; Contribute to model submissions for regulatory use

Background and Qualifications:
- Strong background in probability theory and statistics (including stochastic processes, spatial statistics, time series analysis, regression modeling, Bayesian methods, etc.)
- Interest and ability to gather, understand, and develop models for historical data on natural hazards
- Interest in mortality and longevity modeling
- Solid technical programming skills (e.g. C/C++, FORTRAN, R, S-Plus, SAS, and ArcGIS)
- Strong communication and presentation skills
- Ability to achieve goals and meet deadlines while working on multiple tasks
- Highly motivated and self-directed with demonstrated experience in advancing complex projects

Degree Requirements:
- Ph.D. or M.S. in statistics (Ph.D. degree preferred, M.S. required)
- 2+ years of professional experience in a technical environment

For more information, please contact Greta Ljung at gljung@air-worldwide.com. To apply, please visit https://aircareers-isofamily.icims.com/jobs/24945/research-scientist-statistician/job

Massachusetts General Hospital

Ph.D. Level Biostatistician

Massachusetts General Hospital's Medical Practice Evaluation Center (MPEC) is seeking 2 biostatisticians with a doctoral degree in Statistics or Biostatistics. Applicant must have a methodological background plus expertise in survival analysis, multivariate statistics, longitudinal modeling, simulation modeling, and structural equation modeling. 3 - 5 years of experience required. To apply, visit www.mghcareers.org and search for these openings using job ID # 2229405.

The BCASA Newsletter is published four times during the academic year and is emailed to current BCASA members. Send comments or suggestions to any of the individuals listed below.

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