NISS/SAMSI Affiliate Update

November 2014

Analyzing Complex Survey Data with Missing Item Value Workshop a Success

Over 70 people attended the workshop, entitled "Analyzing Complex Survey Data with Missing Item Values."

The workshop focused on the current state of research and applications for work with incomplete data and imputation for complex designs, technology transfer, application context and dominant features that affect feasibility and statistical properties. Later in the day, the group discussed prospective joint work that they could conduct.



Shu Yang, Harvard School of Public Health.

Speakers included: John Eltinge, Bureau of Labor Statistics, Phil Kott, RTI International, Rod Little, University of Michigan, Shu Yang, Harvard School of Public Health, Joe Schafer, U.S. Census Bureau, Kirk White, U.S. Census Bureau, Kirk White, U.S. Census Bureau, Martha Stinson, U.S. Census Bureau, Tim Keller, USDA National Agricultural Research Service, Jerry Reiter, Duke University, Jae-kwang Kim, Iowa State University, Paul Biemer, RTI

International and the Odum Institute (UNC), and a working session on "Challenging Problems with Incomplete Data and Imputation in Large-Scale Federal Surveys" with **Geoffrey Paulin**, Bureau of Labor Statistics, **Carol Gotway Crawford** and **Wendy Barboza**, NASS.



Joe Schafer, U.S. Census Bureau.

Affiliate Profile - Rice University

The Department of Statistics at Rice is a community of nine core faculty, eleven joint faculty, seventeen adjunct faculty, forty-five Ph.D. students and ten to fifteen undergraduate students. The department regularly hosts visitors from all over the world and it maintains an active post-doctoral program through NSF and NIH sponsorship.

In addition to the undergraduate B.A. degree, students may work towards one of the three graduate degrees offered: the professional master's degree, M.Stat (thesis not required); the research master's degree, M.A. (thesis required); and the doctoral degree Ph.D.

<u>Click here</u> to read more about Rice University.

Copies of all of the presentations can be found on the <u>NISS</u> website.

Post Job Opportunities on the NISS Website

Did you know that as a NISS/SAMSI affiliate you can post your job opportunities for free on our website? Just send your job description to Katherine Kantner (kak@niss.org). We prefer you send the jobs in Word or within an email. We do not have a limitation on number of words or what you need to include in your job description. This is just one of many benefits we offer to our affiliates.

SAMSI Events

Undergraduate Workshop When: February 26-27, 2015

Where: RTP, NC

Deadline to Apply: January 9, 2015. This workshop will focus on ecology.

Details here.

NIMBioS Graduate Workshop on Current Trends in

Statistical Ecology When: April 15-17, 2015 **Where:** Knoxville, TN

Deadline to Apply: December 1, 2014

This workshop will give participants the opportunity to learn about

the latest trends in statistical ecology.

Details here

Undergraduate Modeling Workshop

When: May 17-22, 2015 Where: NCSU, Raleigh, NC Deadline to Apply: TBA More details to come soon.

Summer Program: Uncertainties in Computational

Hemodynamics When: June 1-3, 2015 Where: SAMSI, RTP, NC Deadline to Apply: TBD

During this workshop, bio-engineers, mathematicians, medical doctors, physiologists and statisticians will work collaboratively toward the resolution of three significant challenges in the context of computational hemodynamics: (i) stochastic modeling, (ii) big data approach and (iii) relevance in the clinical setting. The three-day event is structured so that one day will be devoted to each challenge, with a mix of talks and brain storming sessions. More details to come.

Extreme Value Analysis and Applications

When: June 15-19, 2015 Where: Ann Arbor, MI

Deadline for Abstracts: Feb. 17, 2015

The 9th International Conference on Extreme Value Analysis and Applications, co-sponsored by SAMSI, features recent research on the probability and statistics of extreme value phenomena and its important applications to climate and weather, finance, insurance, engineering and computer science.

Industrial Mathematics & Statistical Modeling Workshop

When: July 12-22, 2015 Where: NCSU, Raleigh, NC

Deadline to Apply: April 15, 2015

More details to come soon.

SAMSI's 2015-16 Programs

SAMSI has announced its programs for 2015-16. Nominations are now open for an affiliate representative to join with the program leaders committee for each of these programs. Contact Sujit Ghosh at ghosh@samsi.info.

Challenges in Computational Neuroscience (CCNS)

The CCNS program will develop mathematical and statistical methods for neuroscience applications. These will be used to understand the underlying mechanisms that bridge multiple spatial and temporal scales, linking the activity of individual components (e.g., molecular biology, genetics, and neuron networks), and their interactions to the complex dynamic behavior of the brain and nervous system. Brain theory, modeling, and statistics will be essential to turn data into better understanding of the brain. The CCNS program will address the underlying methodological, theoretical, and computational challenges. Probability and statistics, dynamical systems, geometry, and computer science will be combined with respect to theory and in applications.

The opening workshop is scheduled for August 17-21, 2015. Go to the <u>SAMSI website</u> for details.

Program on Statistics and Applied Mathematics in Forensic Science (Forensics)

SAMSI's program on Forensics is focused on strengthening the statistical and applied mathematical foundations of forensic science. Forensic science is fundamentally based upon statistical comparisons of the characteristics of materials left at a crime scene to characteristics of possible sources or suspects. These comparisons are often acknowledged by forensic scientists to be highly subjective. A series of reports by the National Research Council (NRC) has raised deep questions about major forms of forensic evidence and has made a clear case for heeding statistical underpinnings for forensic procedures. Evidence from a crime include fingerprints, patterns and impressions (footprints and tire tracks), tool marks and firearms, hair, fibers, documents, paints and coatings, bloodstains, and fire debris. Working groups will focus on statistical issues for pattern evidence, for bias, for imaging, and for quality control for forensics laboratories. Crosscutting challenges are to identify where statistics can have a quick impact, and to educate mathematical scientists about forensics and forensic scientists about the mathematical sciences.

Opening workshop is August 31-September 4. Look at the <u>SAMSI website</u> for more details.

Postdoc applications for these two programs can be submitted to: mathjobs.org, SAMSIPD2015 Job #6133.

NISS and SAMSI

P.O. Box 14006, Research Triangle Park, NC www.niss.org and www.samsi.info





