

Douglas Nychka Receives 2004 Sacks Award

Douglas W. Nychka of the National Center for Atmospheric Research has received the 2004 Jerome Sacks Award for Cross-Disciplinary Research, in recognition of his outstanding, sustained cross-disciplinary contributions to the statistical sciences—both theory and practice, atmospheric science, climatology, environmetrics and the geosciences.

The award was presented by Vijay Nair, Chair of the NISS Board of Trustees, at the 2004 NISS/SAMSI JSM Reception, which drew more than 200 attendees. Reading from the citation prepared by the award committee, Nair, noted that “Doug’s research reflects perfectly the spirit of the Sacks award, and he has mentored a large number of postdoctoral fellows in the ways of cross-disciplinary research through the Geophysical Statistics Project at NCAR.

“Doug’s direction has been clear from the very beginning; his first paper was a statistical analysis of stratospheric ozone data. In the same year, his publications span the asymptotics of Lyapunov exponents and the spatial distribution of sulfur dioxide in the eastern United States! He has the rare ability to connect his pragmatic view of applied problems with technical mastery of the theory and methods of mathematical statistics. He is a leader of large interdisciplinary research program serving the important role of mentoring young statisticians, teaching them how to take solutions from one problem domain and carry them to another for further use. He is a most deserving recipient of the Sacks Award for 2004.”

Accepting the award, Doug recognized several people who have had particular influence on his career, including the late Greg Reinsel and Jerry Sacks himself. While he was a faculty member at North Carolina State University, Doug participated in NISS projects on the environment, and co-authored, with Walter Piegorsch and Lawrence Cox, the 1998 monograph *Case Studies in Environmental Statistics* (Lecture Notes in Statistics, Springer-Verlag, New York).

Previous recipients of the Sacks Award are Elizabeth Thompson, University of Washington (2001), Max Morris, Iowa State University (2002) and Raymond A. Carroll, Texas A&M University (2003). The 2005 award selection committee, chaired by Trustee Jessica Utts, solicits nominations of researchers whose work is cross-disciplinary, sustained and encompasses innovation in the statistical sciences. Prefer-



Vijay Nair, Board Chair, presents plaque to Doug Nychka

ence will be given to work that, in the spirit of NISS, creates new research relationships bridging the statistical sciences and other disciplines. “Nonstandard” achievements, such as patents and software creation, will be considered. See the NISS web site for details.

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Director's Corner

Alan F. Karr



The “N” in NISS

Even more so than usual, this issue's Director's Corner is an attempt to lay out how I think about NISS, and in particular how I see our relationships to statistical scientists and statistical sciences organizations across the country. A warning: the thoughts are not complete, and the ideas will surely evolve, so those wanting to avoid (my) introspection may want to go straight to the pictures on page 3.

A couple of years ago I was introduced at a conference as the person “who had put the N in NISS.” As flattering as this is (and believe me, it was extraordinarily flattering), it is clear that this task is far from done. Recent progress by NISS has, almost paradoxically, exacerbated the problem, because (indulging in a moment of self-flattery), more and more people would like to be part of the success story.

To some, however, it may appear that NISS has moved glacially, if at all, to embrace the statistical sciences community. This is not true, but neither is true that engagement with NISS is uniform, either across the country or on other dimensions such as science.

One metaphor for NISS, which some may find appropriate for other reasons, is an onion. We are indeed a multi-layered organization. Our North Carolina base, which includes SAMSI and five of our ten parent organizations (the three Research Triangle universities, RTI International and our TUCASI—the Triangle Universities Center for Advanced Research, Inc.) now seems sound.

The next layer is the set of individuals (several hundred at this point) who are participating or have participated in NISS research. This set includes both established researchers (for example, as noted on page 1, 2004 Sacks Award recipient Doug Nychka, who was a mainstay of environmental research at NISS during the 1990s) and new researchers, especially postdocs, but also graduate students. These people have been major builders of NISS.

The next layer after that is the NISS Affiliates and NISS/SAMSI University Affiliates. This layer intersects the participants layer, but neither contains the other, so it's not a perfect onion. The affiliates have become our most direct line

of communication with the broader community, providing scientific input and advice to NISS and SAMSI and learning first-hand, by means of a host of affiliates events, about the research at NISS and SAMSI. Sometimes, the affiliates programs seem like a balancing act. We are committed to delivering high value to the affiliates in return for their support of NISS and SAMSI. At the same time, we are acutely aware that not every organization that would like to be an affiliate is able to be one, and we are constantly working to make the affiliates programs vibrant without being exclusionary.

Yet another layer is the Board of Trustees, which overlaps but also extends beyond both of the previous layers. Some trustees have been extraordinarily supportive of NISS. But to be candid (although the current structure of the Board makes this much less likely), we have failed to engage many whom have served on the Board.

And then there is “the community.” Some segments are not easy to reach. Perhaps the most challenging is the multitude of west coast statistical sciences organizations for whom participation in events in North Carolina is a significant burden. A west coast office of NISS may not make sense, but we are exploring and planning NISS events on the west coast, especially events hosted by affiliates. Visits to affiliates, a central component of the Year of the Affiliate in 2005, are important to catalyzing more substantive relationships, but are not, of course, the answer in themselves.

Continuing to build out from the core, the NISS Strategic Vision follows 2005—The Year of the Affiliate with 2006—Emphasis on Outreach, to the broader community. The Board of Trustees has formed a National Presence Committee, chaired by Sally Morton of the Rand Corporation, to work with me to develop strategies and place them in action.

But this is not to say, however, that we are going to defer all action. Vijay Nair, as chair of the Board, has put it succinctly: “we want people to identify with NISS as their institute.” And that makes the N in now just as important as the N in NISS.

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NISS/SAMSI Reception at JSM 2004



Alan Gelfand, Nancy Flournoy and Jim Berger



Keith Soper, Steve Fienberg and Stan Young



Todd Graves, Matt Schonlau, Murali Haran and Ashish Sanil



Karen Kafadar and Vijay Nair



David Banks, Steve Cohen and Jerry Reiter



Steve Eick, Mike West, Jerry Sacks and Alan Karr

Postdoctoral Fellowships at NISS

NISS is accepting applications from statistical and other scientists for postdoctoral positions. Several appointments are anticipated, with starting dates in the summer of 2005, or sooner. Appointments will be for two years, with extensions possible. The salary is currently \$62,500 per year.

In accordance with the NISS mission, postdoctoral fellows participate in cross-disciplinary research projects in collaboration with statisticians and other scientists from universities, industry, national laboratories and government agencies. They are mentored by senior statisticians and scientists, and interact strongly with one another, as well as with researchers at NISS' sister institute, the Statistical and Applied Mathematic Sciences Institute (SAMSI).

Opportunities for activity match current NISS projects in the areas of digital government, especially the intersections among data confidentiality, data integration and data quality; dynamics of social networks, information technology, including software engineering statistical disclosure limitation for geospatial image data, bioinformatics, including the integration of genomics, proteomics and metabolomics, and data quality.

Other opportunities arise from the NISS Affiliates Program. NISS and its Federal agency affiliates (the Bureau of Labor Statistics, Census Bureau, National Agricultural Statistics Service, National Center for Education Statistics, National Center for Health Statistics, National Institute of Standards and Technology and National Security Agency) operate a joint postdoctoral program under which NISS appoints postdoctoral fellows for 2-3 year terms in challenging, exciting assignments, principally at agency locations in Washington, DC.

Shared appointments are also possible with SAMSI; see www.samsi.info for information about current and planned SAMSI programs.

Criteria for selection include demonstrated research ability in statistics or a relevant scientific discipline, interest and—to a lesser degree, experience—in project areas, strength in computation and in verbal and written communication, and genuine commitment to cross-disciplinary research.

Applicants must have received, or expect to complete, a doctorate in 1999 or later. Women and members of minority groups are particularly encouraged to apply.

Applications should consist of a letter of interest containing addresses, telephone numbers and citizenship status; three letters of reference; a one-page biographical sketch; a publication record or dissertation abstract; and a one-page statement of interest responding to the criteria and projects listed above. These items are to be submitted by E-mail, as PDF files if possible, to postdoc-application@niss.org.

The deadline for full consideration is January 31, 2005. Later applications will be considered as resources permit. Appointments may be made at any time.

NISS is an AA/EEO employer

NISS and SAMSI Calendars

NISS Annual Meeting

November 5-6, 2004

NISS/SAMSI Building

Workshop on Statistics and Counterterrorism

Saturday, November 20, 2004

Stern School of Business, New York University

Workshop on Total Survey Error

March 17-18, 2005

Washington, DC

Workshop on Overarching Issues in Risk Analysis

April 29-30, 2005

Iowa State University

SAMSI Events

Workshop on Data Mining Methodology and Applications

October 28-30, 2004 (*The Fields Institute, Toronto*)

Data Assimilation for Geophysical Systems

Tutorials and Opening Workshop: January 23-26, 2005

Issues, Challenges and Interdisciplinary Perspectives: February 22-26, 2005 (*at IPAM*)

Fusing Models with Data: From Theory to Practice to Theory: June 12-23, 2005 (*at NCAR, Boulder, CO*)

Latent Variable Models in the Social Sciences

Closing Workshop: May 19-21, 2005

Genomes to Global Health: Computational Biology of Infectious Diseases

Transition Workshop and Symposium: May 22-24, 2005

Financial Mathematics, Statistics and Econometrics

Tutorials and Opening Workshop: September 17-20, 2005

NISS Affiliates

Corporations

Avaya Labs (Basking Ridge, NJ)
Aventis Pharmaceuticals (Bridgewater, NJ)
General Motors (Detroit, MI)
GlaxoSmithKline (RTP, NC and Collegeville, PA)
Golden Helix, Inc. (Bozeman, MT)
ICAGEN, Inc. (Durham, NC)
Merck & Co. (West Point, PA)

Metabolon, Inc. (Research Triangle Park, NC)
MetaMetrics (Durham, NC)
Pfizer Inc. (Groton, CT)
RTI International (Research Triangle Park, NC)
SAS Institute (Cary, NC)
SPSS, Inc. (Chicago, IL)
Telcordia Technologies (Piscataway, NJ)

Government Agencies and National Laboratories

Bureau of the Census (Washington, DC)
Bureau of Labor Statistics (Washington, DC)
Bureau of Transportation Statistics (Washington, DC)
Los Alamos National Laboratory (NM)
National Agricultural Statistics Service (Fairfax, VA)

National Center for Education Statistics (Washington, DC)
National Center for Health Statistics (Hyattsville, MD)
National Institute of Standards and Technology (Gaithersburg, MD)
National Security Agency (Fort George Meade, MD)

NISS/SAMSI University Affiliates

American University (Mathematics and Statistics)
University of California, Los Angeles (Statistics)
Carnegie Mellon University (Statistics)
Duke University (Statistics and Decision Sciences, and Mathematics)
Emory University (Biostatistics)
University of Florida (Statistics)
Florida State University (Statistics)
University of Georgia (Statistics)
University of Illinois Urbana-Champaign (Statistics)
Iowa State University (Statistics)
University of Iowa (Statistics)
Johns Hopkins University (Mathematical Sciences)
University of Maryland Baltimore County (Mathematics and Statistics)
University of Michigan (Statistics and Biostatistics)
University of Missouri - Columbia (Statistics)
North Carolina State University (Statistics and Mathematics)
University of North Carolina at Chapel Hill (Biostatistics, Statistics and Mathematics)
Oakland University (Mathematics and Statistics)
Ohio State University (Statistics)
Pennsylvania State University (Statistics)
Purdue University (Statistics)
Rice University (Statistics)
Rutgers University (Statistics)
University of South Carolina (Statistics)
Southern Methodist University (Statistical Science)
Stanford University (Statistics)
Texas A&M University (Statistics)