



# Media Release

Contact: Jamie Nunnelly, Communications Director 919.685.9319, nunnelly@niss.org

For Immediate Release

## NSF Math Institutes create new jobs

### *SAMSI Hiring More Postdocs as a Result of Money from NSF*

**May 11, 2009, Research Triangle Park, NC** – The seven National Science Foundation (NSF) Mathematical Sciences Research Institutes announce the creation of 45 new two-year positions for young, highly-trained mathematical scientists across the country. In addition to furthering research in all areas of the mathematical sciences, these positions will allow recent PhDs to teach at community colleges and other higher-education institutions or to participate in projects tied to business and industry. This new initiative is a result of a partnership among the National Science Foundation-supported mathematics institutes.

The Statistical and Applied Mathematical Sciences Institute (SAMSI), a nonprofit national institution that promotes research in statistical and applied mathematical sciences, will hire up to eight new postdoctoral positions, thanks to additional money it will receive from the NSF.

The impact of the economic downturn is being felt everywhere—including academia. This year has seen widespread hiring freezes and canceled job searches at universities across the country. For the mathematical and statistical science community, this has meant almost 400 lost positions for recent PhDs. The severity of the situation became apparent earlier this year when many graduates, even of top-tier programs, were facing unemployment. The NSF, through its Mathematics Institutes, responded by creating these new postdoctoral fellowships.

The training of these young scientists represents a long-term investment. The postdocs typically spent five years in graduate education, often with some level of support from state or federal funds.

“These new researchers are primed to make significant contributions to their fields,” said Peter March, Director of NSF’s Division of Mathematical Sciences. The newly created positions will place highly trained people as teachers at two- and four-year colleges, as well as in business and industry.

(MORE)

### **Statistical and Applied Mathematical Sciences Institute**

P.O. Box 14006, Research Triangle Park, NC 27709-4006  
919-685-9350 (V) ♦ 919-685-9360 (F) ♦ [www.samsi.info](http://www.samsi.info)

At SAMSI, seven to eight new postdoctoral fellows will be joining the existing postdoctoral program, as this ensures that the fellows will become involved in highly interdisciplinary research, a potential key for their future employment. The postdoctoral appointments will typically be for two years. For those interested in an eventual academic position, the appointments will involve teaching at one of the partner universities of SAMSI (Duke University, North Carolina State University, and the University of North Carolina at Chapel Hill), to ensure that they will enhance their teaching skills.

### **Short Timeline**

Exactly one month elapsed between the first meeting of the seven Mathematics Institute directors and the close of applications. And less than one week after the deadline, more than 750 applications were reviewed and the first round of offers was made. Typically, academic job searches begin in the Fall and take several months to complete.

“The timing was perfect,” said Eddie Herman, one of the newly hired mathematicians. “Most academic positions are decided by the middle of March, so the Institutes began advertising at exactly the time when many of us were losing hope of finding a research position and were ready to look for other jobs.” Dr Herman received his PhD from UCLA this year.

### **Pipeline issues**

The economic downturn is being felt by everyone, including the research and academic community. Universities are canceling job searches, which limits the number of positions for new PhDs and people completing postdoctoral training. Additionally, many US graduate programs have reduced the size of their incoming class. In fact, some programs will not be admitting any students in the next academic year. This has the effect of diminishing the size of our next generation of scientists, those who would be graduating at a time when our economy is recovering and in need of a highly trained workforce.

Currently, many workers are seeking re-training in response to the needs of the changing economy--just as colleges and universities face cutbacks.

“We had more people apply for positions this year than any other year since SAMSI was formed,” noted SAMSI Director James Berger, “Top flight candidates are having problems finding positions, even though the field of applied mathematics and statistics has typically had more available positions than applicants.”

### **Diverse Impact**

The impact of this program is widespread, with postdocs working in a dozen states across the country, and in all areas of the mathematical sciences. While continuing their research, the Institute postdocs will also apply their training through teaching or industrial partnerships.

Oliver Diaz, originally from Mexico, received his Ph.D. from the University of Texas at Austin in applied probability, and is now a U.S. Permanent Resident. “We are delighted to have Oliver as a postdoctoral fellow in the SAMSI research program on Stochastic Dynamics, where he will be able to use his background in

(MORE)

**Statistical and Applied Mathematical Sciences Institute**

P.O. Box 14006, Research Triangle Park, NC 27709-4006  
919-685-9350 (V) ♦ 919-685-9360 (F) ♦ [www.samsi.info](http://www.samsi.info)

applied probability to tackle central interdisciplinary problems in a wide range of fields where randomness and dynamics are central,” said Berger. Diaz will also be teaching at Duke University.

A postdoc at the Institute for Mathematics and its Applications (IMA, in Minneapolis) will intern at the GM Research Center in Warren, MI. The project concerns the inverse problem of electromagnetic shaping, applying abstract mathematics to new manufacturing techniques. The issue is to determine what pattern of electric current will create a casting of a predetermined shape out of liquid metal. The problem is, in a sense, the opposite of determining the shape of internal organs from a cat scan. Both applications are based on the mathematics of partial differential equations.

## **About SAMSI**

The Statistical and Applied Mathematical Sciences Institute (SAMSI) is a national institute that is forging a new synthesis of the statistical and applied mathematical sciences with disciplinary science to confront important data- and model-driven scientific challenges. It is based in Research Triangle Park, North Carolina.

SAMSI is a partnership of the National Science Foundation with the consortium of Duke University, North Carolina State University, the University of North Carolina at Chapel Hill, and the National Institute of Statistical Sciences.

For more information about SAMSI or about the new postdocs, go to: [www.samsi.info](http://www.samsi.info).

# # #

**Statistical and Applied Mathematical Sciences Institute**

P.O. Box 14006, Research Triangle Park, NC 27709-4006  
919-685-9350 (V) ♦ 919-685-9360 (F) ♦ [www.samsi.info](http://www.samsi.info)