Digest of Items of Interest to the Caucus of Academic Reps - Week of May 17, 2013

Funding opportunities:

- Workforce Program in the Mathematical Sciences
- Dear Colleague Letter: OFR-NSF Partnership in Support of Research Collaborations in Finance Informatics

Position announcements:

- (none, other than the two that were sent out by departments directly to the list earlier this week)

Other opportunities:

- International Science and Engineering Visualization Challenge
- Lefkopoulou Memorial Lectureship

Funding opportunities

Workforce Program in the Mathematical Sciences

DUE DATES

May 15 - June 15, Annually Thereafter
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SYNOPSIS

The long-range goal of the DMS Workforce Program is to increase the number of well-prepared U.S. citizens, nationals, and permanent residents who successfully pursue careers in the mathematical sciences and in other NSF-supported disciplines.

Among intermediate goals to this end are improvements in recruitment, retention, education, and placement of trainees in the mathematical sciences.

The program’s primary interest is in activities centered on education through research involvement for trainees at the undergraduate through postdoctoral educational levels. Activities that broaden participation in the mathematical sciences are of significant interest to the Division of Mathematical Sciences.

The program is particularly interested in activities that improve:
• recruitment and retention: increasing the number and diversity of U.S. students who successfully pursue undergraduate and graduate degrees in mathematics and statistics;
• educational breadth: broadening graduate education and undergraduate education content in the mathematical sciences to prepare students for a wider range of career opportunities; and
• professional development: enhancing the professional skills of mathematical sciences postdoctoral associates, graduate students, and undergraduate students to better prepare them for both academic and nonacademic employment.

The program welcomes unsolicited proposals for activities that address the program goals in innovative and creative ways. Proposals must clearly identify:

• the goals to be achieved;
• the specific new activities to be conducted, the way in which these address the goals, and the way in which the activities significantly differ from or enhance common practice;
• measurable proposed outcomes for the project;
• specific methods for evaluation of the success of the activity and for assessment of progress toward the goals to be achieved, and
• a budget commensurate with the proposed activity.

The program particularly seeks unsolicited proposals for activities that are:

• novel and potentially transformative, in that they promise extraordinary outcomes;
• portable, in the sense that they potentially can be duplicated at other institutions;
• sustainable, meaning that the activity can be continued in the absence of external funding;
• likely to have large impact in terms of the numbers of trainees affected; and
• exemplary, in that they can serve as national models for education through research involvement.

Proposers are advised to contact one of the cognizant program directors prior to submitting a proposal. The program has an annual submission window for unsolicited proposals of May 15 through June 15. (Unsolicited proposals received at other times will be returned without review.)

The Workforce Program also administers several more structured training activities, proposals for which are submitted in response to specific solicitations:

1. Research Training Groups in the Mathematical Sciences (RTG)
2. Mentoring through Critical Transition Points in the Mathematical Sciences (MCTP)
3. Mathematical Sciences Postdoctoral Research Fellowships (MSPRF)
4. Research Experiences for Undergraduates Sites (REU)
5. Expeditions in Training, Research, and Education for Mathematics and Statistics through Quantitative Explorations of Data (EXTREEMS-QED)

Please note that the deadline dates for submission of proposals in response to these specific solicitations differ from the submission-window dates for unsolicited proposals.
Dear Colleague Letter: OFR-NSF Partnership in Support of Research Collaborations in Finance Informatics

The Directorate for Computer and Information Science and Engineering (CISE) of the National Science Foundation (NSF) and the Office of Financial Research (OFR) of the Department of Treasury share an interest in advancing basic and applied research centered on Computational and Information Processing Approaches to and Infrastructure in support of, Financial Research and Analysis and Management (CIFRAM).

The complexity of modern financial instruments presents many challenges in recognizing and regulating Systemic Risk. The topic has been the subject of a recent National Academy of Science Report titled "Technical Capabilities Necessary for Systemic Risk Regulation: Summary of a Workshop." The CISE directorate and the Computing Community Consortium have sponsored workshops on Knowledge Representation and Information Management for Financial Risk Management and on Next-Generation Financial Cyberinfrastructure aimed at identifying research opportunities and challenges in CIFRAM.

NSF and OFR have established a collaboration (hereafter referred to as CIFRAM) to identify and fund a small number of exploratory but potentially transformative CIFRAM research proposals. The collaboration enables OFR to support a broad range of financial research related to OFR’s mission, including research on potential threats to financial stability. It also assists OFR with the goal of promoting and encouraging collaboration between the government, the private sector, and academic institutions interested in furthering financial research and analysis. The collaboration enables the NSF to nurture fundamental CISE research on a variety of topics including algorithms, informatics, knowledge representation, and data analytics needed to advance the current state of the art in financial research and analysis. Proposals that involve collaborations between Computer Scientists, Mathematicians, Statisticians, and experts in Financial Risk Analysis and Management are especially welcome.


Position announcements

(none, other than the two that were sent out by departments directly to the list earlier this week)

Other opportunities

International Science and Engineering Visualization Challenge

Some of science's most powerful statements are not made in words. From DaVinci's Vitruvian Man to Rosalind Franklin's X-rays, science visualization has a long and literally illustrious history. To illustrate is
to enlighten! Illustrations provide the most immediate and influential connection between scientists and other citizens, and the best hope for nurturing popular interest. They are a necessity for public understanding of research developments.

The National Science Foundation (NSF) and the journal *Science* created the International Science & Engineering Visualization Challenge to celebrate the grand tradition of science visualization and to encourage its continued growth. The spirit of the competition is to communicate science, engineering and technology for education and journalistic purposes.

Judges appointed by NSF and *Science* will select winners in five categories: Photography, Illustration, Posters & Graphics, Games & Apps, and Video. The winning entries will appear in a special section of *Science* (with one entry chosen for the front cover) and be hosted at *ScienceMag.org* and *NSF.gov*. In addition, each winner will receive a one-year online subscription to *Science* and a certificate of appreciation.

We urge you and your colleagues to enter the competition now, which closes on September 30, 2013. If you have questions, please contact us at scivis@nsf.gov.


**Lefkopoulou Memorial Lectureship**

The Department of Biostatistics, Harvard School of Public Health, has named Nilanjan Chatterjee, Ph.D., Senior Investigator and Chief, Biostatistics Branch, National Cancer Institute, Division of Cancer Epidemiology & Genetics, as the 2013 Myrto Lefkopoulou Distinguished Lecturer. Dr. Chatterjee will present a lecture entitled “Genetic Architecture of Complex Diseases: Implications for Discovery, Prediction and Prevention” on September 19 at the Harvard School of Public Health.

The lectureship was established in perpetuity in memory of Dr. Myrto Lefkopoulou, a faculty member and graduate of Harvard School of Public Health. Dr. Lefkopoulou tragically died of cancer in 1992 at the age of 34 after a courageous two-year battle. She was deeply beloved by friends, students and faculty.

Each year the Lectureship is awarded to a promising statistician who has made contributions to either collaborative or methodologic research in the applications of statistical methods to biology or medicine and/or has shown excellence in the teaching of biostatistics. Ordinarily, the lectureship is given to a statistician within 15 years of receiving an earned doctorate.

Previous recipients of the Lefkopoulou Memorial Lectureship have been Louise Ryan, Kathryn Roeder, Giovanni Parmigiani, Hans-Georg Mueller, Trevor Hastie, Michael Boehnke, Ronald Brookmeyer, Steven N. Goodman, Bradley P. Carlin, Danyu Lin, Marie Davidian, Geert Molenberghs, Mark van der Laan, Jianqing Fan, Francesca Dominici, Heping Zhang, Xihong Lin, David Dunson, Jeffrey Morris and Rafael Irizzary.

Nominations for next year’s lectureship are welcome and should be sent to the Myrto Lefkopoulou Lecture Committee, Department of Biostatistics, Harvard School of Public Health, 655 Huntington
Avenue, Boston, MA 02115 or via email to vbeaulie@hsph.harvard.edu. Nominations should include a letter of nomination and a C.V. The nomination deadline is March 31, 2014.