Mathematics Opportunities

NSF CAREER Program Guidelines Available

The guidelines for the Faculty Early Career Development (CAREER) Program of the National Science Foundation (NSF) are now available on the World Wide Web. The program solicitation number is NSF 02-111. Information is available at `http://www.nsf.gov/pubs/2002/nsf02111/nsf02111.htm`. Proposals must be submitted electronically. The deadline for proposals in the mathematical and physical sciences is **July 24, 2003**.

—From an NSF announcement

Call for Nominations for Sloan Fellowships

Nominations for candidates for Sloan Research Fellowships, sponsored by the Alfred P. Sloan Foundation, are due by **September 15, 2003**. A candidate must be a member of the regular faculty at a college or university in the United States or Canada and must be at an early stage in his or her research career. For information write to: Sloan Research Fellowships, Alfred P. Sloan Foundation, 630 Fifth Avenue, Suite 2550, New York, NY 10111; or consult the foundation's Web page: `http://www.sloan.org`.

—From a Sloan Foundation announcement

NSF Supplements for Undergraduate Education in Biological and Mathematical Sciences

The Directorate for Biological Sciences, the Directorate for Education and Human Resources, and the Division of Mathematical Sciences (DMS) at the National Science Foundation (NSF) are making available opportunities for the scientific community to enhance interdisciplinary education and training for undergraduates at the intersection of the biological and mathematical sciences. The goal is to stimulate development of a future work force prepared to work in the increasingly many areas where these two disciplines connect. To that end, the NSF invites supplemental funding requests for projects that intensify undergraduate education at the interface through research experiences and changes in curricula and other educational practices.

Typical requests might include, but are not limited to, activities such as: joint mentorship of groups of students by biologists and mathematicians; opportunities for hands-on experiences for mixed groups of students, e.g., experimental laboratory or field work for the mathematical sciences students, and mathematics/statistics and computing laboratories for biology students; exploring development of curricula, course materials, or digital library components; international cross-disciplinary research experiences for undergraduates; exploratory research on interdisciplinary teaching and learning for undergraduates; and workshops and other explorations aimed at designing methods to advance interdisciplinary education and training.

All activities should be linked to leading-edge research combining the mathematical and biological sciences and to the preparation of students for work in this intersection.

Questions about this activity may be directed to DMS program officer Michael Steuerwalt, email: `msteuerw@nsf.gov`. Further information is available in a "Dear Colleague" letter at `http://www.nsf.gov/pubsys/ods/getpub.cfm?nsf03037`.

—From an NSF announcement

NSF Program on Approaches to Combat Terrorism

The National Science Foundation's Directorate for Mathematical and Physical Sciences (MPS) and the intelligence community are coordinating efforts to identify bold new concepts in basic research and work force development in the MPS disciplines with the potential to contribute to national security. The solicitation for Approaches to Combat Terrorism (ACT) is intended to inform researchers in disciplines supported by the MPS Directorate—the Divisions of Astronomical Sciences, Chemistry, Materials Research, Mathematical Sciences, and Physics—that NSF welcomes requests for supplements to existing grants, proposals

for small grants for exploratory research, and proposals for workshops that promote the objectives of this ACT pilot program.

The solicitation may be found at `http://www.nsf.gov/pubsys/ods/getpub.cfm?nsf03569`. The proposal deadline is **July 17, 2003**.

—From an NSF announcement

Fulbright Lecturing/Research Grants

The Fulbright Scholar Program is offering lecturing/research awards in approximately 140 countries for the 2004–2005 academic year. Opportunities are available for college and university faculty and administrators, for professionals from business and government, independent scholars, and many others. Traditional Fulbright awards are available from two months to an academic year or longer. A new short-term grants program, the Fulbright Senior Specialists Program, offers two- to six-week grants in a variety of disciplines and fields. Although foreign language skills are needed in some countries, most Fulbright lecturing assignments are in English. About 80 percent of the awards are for lecturing. Application deadlines for 2004–2005 awards are: **August 1, 2003,** for Fulbright traditional lecturing and research grants worldwide, and **November 1, 2003,** for spring/summer seminars in Germany, Korea, and Japan for international educators and academic administrators and for the summer German Studies Seminar. The Fulbright Senior Specialists Program has a rolling deadline. For further information contact the Council for International Exchange of Scholars (CIES), 3007 Tilden Street, NW, Suite 5L, Washington, DC 20008-3009; telephone 202-686-7877; email: `apprequest@cies.iie.org`. Information and an online application are also available on the Web at `http://www.cies.org`. The Fulbright Scholar Program is sponsored by the United States Department of State, Bureau of Educational and Cultural Affairs.

—From a CIES announcement

Call for Nominations for AWM Hay and Schafer Awards

The Executive Committee of the Association for Women in Mathematics (AWM) is calling for nominations for the Louise Hay Award for Contributions to Mathematics Education and the Alice T. Schafer Mathematics Prize.

The Louise Hay Award is intended to recognize outstanding achievements in any area of mathematics education, interpreted in the broadest possible sense. The award is presented annually to highlight the importance of mathematics education and to evoke the memory of all that Hay exemplified as a teacher, scholar, administrator, and human being. The nomination document(s) should include: (1) a one- to three-page letter of nomination highlighting the exceptional contributions of the candidate; (2) a curriculum vitae of the candidate, not exceeding three pages; and (3) three letters supporting the nomination. It is strongly recommended that the letters represent a range of constituents affected by the nominee's work.

The Alice T. Schafer Prize is awarded to an undergraduate woman for excellence in mathematics. The nominee may be at any level in her undergraduate career but must either be a U.S. citizen or have a U.S. school address. A letter of nomination for the Schafer Prize should include, but not be limited to, an evaluation of the nominee on the following criteria: (1) quality of performance in advanced mathematics courses and special programs, (2) demonstration of real interest in mathematics, (3) ability to do independent work in mathematics, and (4) performance in mathematical competitions at the local or national level, if any. A copy of transcripts and an indication of the candidate's undergraduate level should be included with a letter of nomination. Supporting materials (e.g., reports from summer work using mathematics, copies of talks given in student chapters, recommendations, etc.), if applicable, should be enclosed with the nomination.

Five complete copies of nomination material for these awards should be sent to either: The Hay Award Selection Committee or The Alice T. Schafer Award Selection Committee, Association for Women in Mathematics, 4114 Computer & Space Sciences Building, University of Maryland, College Park, MD 20742-2461. For further information call the AWM at 301-405-7892 or send email to `awm@math.umd.edu`. Please note that nominations via email or fax are not acceptable. The deadline for nominations for both awards to be received at the AWM office is **October 1, 2003**.

—AWM announcement

Call for Nominations for National Medal of Science

The President's Committee on the National Medal of Science is calling for nominations for the 2004 medal.

The National Medal of Science is awarded to individuals in recognition of outstanding contributions to knowledge in the fields of mathematical, physical, biological, engineering, and social and behavioral sciences.

The deadline for nominations for the 2004 medals is **June 30, 2003**. Further information, guidelines, and instructions for submitting nominations electronically can be found on the website of the National Science Foundation (NSF) at `https://www.fastlane.nsf.gov/jsp/homepage/medal_sci.jsp`.

—From an NSF announcement

News from the Fields Institute

The Fields Institute for Research in Mathematical Sciences has announced its program for 2003–2004. The Thematic Program on Partial Differential Equations will focus principally on problems that stem from questions in applied mathematics and in mathematical physics. The subject matter is chosen from active topics of research that are of particular current interest. The fall semester of the program will focus on elliptic and parabolic systems of partial differential equations arising in mathematical theories of superconductivity and of phase transition phenomena in the physics of materials. The winter semester will focus on Hamiltonian partial differential equations, in particular hyperbolic equations and nonlinear dispersive evolution equations that arise in mathematical physics and in continuum mechanics, and on the equations of kinetic theory that arise in the study of statistical mechanics and of wave turbulence. A partial list of activities and their dates follows.

August 25-30, 2003: Workshop on Calculus of Variations: Geometric Problems, Superconductivity and Material Microstructures. Organizers: S. Alama, L. Bronsard, R. Choksi, R. Jerrard, and R. McCann.

October 1-4, 2003: Symposium on Inverse Problems. Organizer: A. Nachman.

October 20-22, 2003: Coxeter Lecture Series. Lecturer: Craig Evans.

November 14-18, 2003: Workshop on Patterns in Physics. Organizers: R. Almgren, N. Ercolani, D. Henderson, J. Lega, M. Pugh.

Dates have not yet been set for the Colloquium on Partial Differential Equations and the McMaster University Britton Lectures, with lecturer Haïm Brezis.

Four courses are also being offered in the fall term: a Short Course on Mathematical Aspects of Fluid Dynamics, instructed by W. Craig, C. Dafermos, C. Fefferman, and B. Khesin; Partial Differential Equations, instructed by W. Craig; Optimal Transportation and Nonlinear Dynamics, instructed by R. McCann; and Wave Propagation, instructed by C. Sulem. For more detailed information, including funding opportunities from The Fields Institute and the National Science Foundation, see the website `http://www.fields.utoronto.ca/programs/scientific/03-04/pde/`.

The Fields Institute invites applications for postdoctoral fellowship positions at the institute for the 2004–2005 academic year. These fellowships provide an opportunity to spend at least one year engaged in research and participating in the research activities of the institute. Applications for the Program on String Theory should be received by **January 2, 2004**. Applicants seeking postdoctoral fellowships funded by other agencies (such as NSERC and international fellowships) should request The Fields Institute as their proposed location of tenure and should apply to The Fields Institute for a letter of invitation. For further information see `http://www.fields.utoronto.ca/proposals/postdoc.html`.

—From a Fields Institute announcement

News from the IMA

The 2003–2004 program at the Institute for Mathematical Sciences and its Applications (IMA) is "Probability and Statistics in Complex Systems: Genomics, Networks, and Financial Engineering". The fall quarter will focus on genomics, the winter quarter on communication networks, and the spring quarter on financial engineering. The schedule for the fall quarter, including dates and topics of workshops, is as follows:

September 15-19, 2003: Tutorial on Tools for Model and Data Integration in the Genome Sciences.

September 29-October 3, 2003: Workshop on Statistical Methods for Gene Expression: Microarrays and Proteomics.

October 20-24, 2003: Joint IMA/RECOMB (Research in Computational Molecular Biology) Workshop on Comparative Genomics.

November 17-21, 2003: Workshop on Networks and the Population Dynamics of Disease Transmission.

The organizing committee consists of Tom Kurtz (University of Wisconsin, Madison), Marco Avellaneda (Courant Institute, New York University), Bruce Hajek (University of Illinois, Urbana), Richard Karp (University of California, Berkeley), Sallie Keller-McNulty (Los Alamos National Laboratories), Andrew Lo (Massachusetts Institute of Technology), Michael Newton (University of Wisconsin, Madison), Simon Tavare (University of Southern California), and Walter Willinger (AT&T Laboratories). Further information and application forms are available from `http://www.ima.umn.edu/complex`.

—From an IMA announcement