Mathematics Opportunities

NSF Computing Equipment and Instrumentation Programs

The Division of Mathematical Sciences (DMS) of the National Science Foundation (NSF) plans a limited number of awards for the support of computing environments for research in the mathematical sciences. SCREMS (Scientific Computing Research Environments for the Mathematical Sciences) supports computing environments dedicated to research in the mathematical sciences. Proposals may request support for the purchase of computing equipment and limited support for professional systems administrators or programmer personnel for research computing needs. These grants are intended to support research projects of high quality that require access to advanced computing resources. Requests for routine upgrades of standard desk-environment workstations or laptop computers are not appropriate for this program. Awards are made to provide support for specific research projects rather than to provide general computing capacity. Proposers are encouraged to include projects involving symbolic and algebraic computations, numerical computations and simulations, and graphical representations (visualization) in aid of the research.

Please see `http://www.nsf.gov/publications/pub_summ.jsp?ods_key=nsf05627` for details. The deadline for proposals is **January 25, 2007.**

—From an NSF announcement

DMS/NIGMS Initiative in Mathematical Biology

The Division of Mathematical Sciences (DMS) of the National Science Foundation (NSF) announces a competition designed to support research on mathematical problems related to biological problems in areas supported by DMS and by the National Institute of General Medical Sciences (NIGMS) at the National Institutes of Health (NIH). A direct relationship between a biological application and the mathematics is expected. Research teams, which include scientists from both the life sciences community and the mathematical sciences community, are encouraged. Both new and existing collaborations will be supported. Individual investigators should have expertise in both areas.

Successful proposals will identify innovative mathematics or statistics needed to solve an important biological problem. Research that would apply standard mathematics or statistics to solve biological problems is not appropriate for this competition and should be submitted directly to NIH. Similarly, proposals for research in mathematics or statistics that is not tied to a specific biological problem should be submitted to the appropriate DMS program at NSF. Proposals designed to create new software tools based on existing models and methods will not be accepted in this competition.

The deadline for full proposals is **December 15, 2006.** For more information, see `http://www.nsf.gov/publications/pub_summ.jsp?ods_key=nsf06607`.

—From an NSF announcement

National Academies Mirzayan Graduate Fellowship Program

The Christine Mirzayan Science and Technology Policy Graduate Fellowship Program of the National Academies is designed to engage graduate science, engineering, medical, veterinary, business, and law students in the analysis and creation of science and technology policy and to familiarize them with the interactions of science, technology, and government. As a result, students develop essential skills different from those attained in academia and make the transition from graduate student to professional. In 2007 programs will be held in the summer, from June 4 through August 10; and in the fall, from September 17 through November 21.

Applications for the fellowships are invited from scholars from graduate through postdoctoral levels in any physical, biological, or social science field or any field of engineering, medicine and health, or veterinary medicine, as

well as business, law, education, and other graduate and professional programs. Postdoctoral scholars should have received their Ph.D.'s within the past five years.

The stipend for each 10-week program is US$5,300. The fellowship stipend is intended to cover all living expenses for the period.

Deadlines for receipt of materials for the summer program is **March 1, 2007,** and for the fall program, **June 1, 2007.** More information and application forms and instructions can be found on the website `http://www7.nationalacademies.org/policyfellows` or by contacting The National Academies Christine Mirzayan Science and Technology Policy Graduate Fellowship Program, 500 Fifth Street, NW, Room 508, Washington, DC 20001; telephone: 202-334-2455; fax: 202-334-1667; email: `policyfellows@nas.edu`.

—From a National Academies announcement

Newton Fellowship Program

The Math for America Foundation (MfA) sponsors the Newton Fellowship Program, which trains mathematically talented individuals to become high school mathematics teachers in New York City. The fellowship provides an aggregate stipend of US$90,000 over five years, a full-tuition scholarship for a master's-level teaching program at one of MfA's partner universities, and ongoing support mechanisms, including mentoring and professional development.

Candidates should hold a bachelor's degree with substantial coursework in mathematics and should be able to demonstrate a strong interest in teaching. Applicants must be willing to commit to a five-year fellowship term in New York City. Individuals who are currently teaching, who are certified to teach, or who have completed an education degree program are not eligible. Candidates must be U.S. citizens or permanent residents of the United States. The deadline for applications is **February 9, 2007.** For more detailed information, see the website at `http://www.mathforamerica.org/`.

—From an MfA announcement

Call for Nominations for Waterman Award

Congress established the Alan T. Waterman Award in August 1975 to mark the twenty-fifth anniversary of the National Science Foundation (NSF) and to honor its first director. The annual award recognizes an outstanding young researcher in any field of science or engineering supported by the NSF. In addition to a medal, the awardee receives a grant of US$500,000 over a three-year period for scientific research or advanced study in the mathematical, physical, medical, biological, engineering, social, or other sciences at the institution of the recipient's choice.

Candidates must be U.S. citizens or permanent residents and must be thirty-five years of age or younger or not more than seven years beyond receipt of the Ph.D. degree by December 31 of the year in which they are nominated. Candidates should have demonstrated exceptional individual achievements in scientific or engineering research of sufficient quality to place them at the forefront of their peers. Criteria include originality, innovation, and significant impact on the field.

The deadline for nominations and all supporting material for the award is **December 31, 2006.** For more information, see the website `http://www.nsf.gov/od/waterman/waterman.jsp`.

—From an NSF announcement

CMI Liftoff Program for Summer 2007

The Clay Mathematics Institute (CMI) is currently accepting nominations for the 2007 Liftoff program. Through this program, CMI will employ recent Ph.D. recipients as Liftoff Fellows to carry out mathematics research for one month during the summer of 2007. This program provides a transition for young mathematicians from student to faculty member or to a postdoctoral position. Funds for travel to conferences or to visit collaborators are also available to Liftoff Fellows.

Nominations should be made by university mathematics departments; candidates may not apply directly. Criteria for selection are the quality and significance of mathematical research already achieved by the candidate and the potential of the candidate to become a leader in mathematical research.

Nomination packets should include: (1) a cover letter signed by the department chair; (2) two letters of recommendation, including one from the thesis supervisor (existing letters of recommendation already written for job applications can be used); (3) a CV from the nominee, including name, address, telephone, email, date of birth, citizenship, education, thesis title, honors, previous employment, reference to published work or submitted articles, and proposed research; and (4) a one-sentence signed statement from a mathematician agreeing to supervise the nominee on behalf of CMI, with the proposed dates of employment.

Nominations can be sent electronically to the attention of Elizabeth Abraham at `nominations@claymath.org` or by postal mail to Clay Mathematics Institute, One Bow Street, 4th Floor, Cambridge, MA 02138. The deadline for nominations to be received is **February 16, 2007.** For more information, see the website `http://claymath.org/fas/liftoff_fellows/`; telephone: 617-995-2600; email: `nominations@claymath.org`.

—From a CMI announcement