Mathematics Opportunities

Interdisciplinary Grants in the Mathematical Sciences

The National Science Foundation (NSF) sponsors the Interdisciplinary Grants in the Mathematical Sciences (IGMS) program. The objective of the IGMS program is to enable mathematical scientists to undertake research and study in another discipline so as to: expand their skills and knowledge in areas other than the mathematical sciences, subsequently apply this knowledge in their research, and enrich the educational experiences and broaden the career options of their students.

Recipients of IGMS awards are expected to spend full time in a nonmathematical science department in an academic institution or an industrial, commercial, or financial organization. The expected outcome is sufficient familiarity with another discipline so as to open opportunities for effective collaboration by the mathematical scientist with researchers in another discipline.

The program announcement is available at `http://www.nsf.gov/pubsys/ods/getpub.cfm?nsf04518`. The deadline for proposals is **February 19, 2004**.

—NSF announcement

National Academies Internship Program

The Christine Mirzayan Science and Technology Policy Internship 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 being a graduate student to being a professional. In 2004 programs will be held in the summer from June 1 through August 6, and in the fall from September 7 through November 24.

Applications for the internships 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 the 12-week September program is $5,700 and for the 10-week June program, $4,800. The internship stipend is to cover all living expenses for the period. In addition, a travel stipend of up to $500 will be provided.

Deadline for receipt of materials for the summer program is **March 1, 2004**, and for the fall program, **June 1, 2004**. More information and application forms and instructions can be found on the website `http://www7.nationalacademies.org/internship/index.html` or by contacting The National Academies Christine Mirzayan Science and Technology Policy Internship Program, 500 5th Street, NW, Room 508, Washington, DC 20001; telephone: 202-334-2455; fax: 202-334-1667.

—From a National Academies announcement

IAS/Park City Mathematics Institute

The Institute for Advanced Study (IAS)/Park City Mathematics Institute (PCMI) will hold its 2004 summer session July 11–31, 2004, in Park City, Utah. The research topic is geometric combinatorics. The organizers are Bernd Sturmfels (University of California, Berkeley), Ezra Miller (University of Minnesota), and Victor Reiner (University of Minnesota). The education topic is knowledge of mathematics for teaching. The coordinators are Gail Burrill (Michigan State University), Joan Ferrini-Mundy (Michigan State University), Daniel Goroff (Harvard University), and Carol Hattan (Skyview High School, Vancouver, Washington).

The IAS/PCMI began in 1991 at the University of Utah as a National Science Foundation Regional Geometry Institute. In 1993 the Institute for Advanced Study assumed sponsorship of the program. Each summer the PCMI offers an integrated set of programs for researchers, postdoctorates, graduate and undergraduate students, and teachers.

Further information on the summer program and other IAS/PCMI activities, as well as on application procedures, is available at the website http://www.admin.ias.edu/ma/.

—From an IAS/PCMI announcement

NSF-CBMS Regional Conferences, Summer 2004

The National Science Foundation (NSF) has funded three NSF-CBMS Regional Research Conferences to be held during the spring and summer of 2004. These three will bring to 298 the total number of such conferences since the NSF-CBMS Regional Research Conference Series began in 1969. The Conference Board of the Mathematical Sciences (CBMS) administers this conference series.

These conferences are intended to stimulate interest and activity in mathematical research. Each five-day conference features a distinguished lecturer who delivers ten lectures on a topic of important current research in one sharply focused area of the mathematical sciences. The lecturer subsequently prepares an expository monograph based upon these lectures, which is normally published as a part of a regional conference series. Depending upon the conference topic, the monograph is published by the American Mathematical Society, the Society for Industrial and Applied Mathematics, or jointly by the American Statistical Association and the Institute of Mathematical Statistics.

Support for about thirty participants is provided, and the conference organizer invites both established researchers and interested newcomers, including postdoctoral fellows and graduate students, to attend.

Information about an individual conference may be obtained by contacting the conference organizer. The three conferences to be held in 2004 are listed below.

Graph Algebras: Operator Algebras We Can See, Iain Raeburn, lecturer. May 31–June 4, University of Iowa. Organizers: Paul S. Muhly (319-335-0795, pmuhly@math.uiowa.edu), Mark Tomforde (319-335-3873, tomforde@math.uiowa.edu), and David A. Pask (david@maths.newcastle.edu.au). Staff contact: Sandra Stockman (319-335-0781, sandra-stockman@uiowa.edu). Web page: http://www.math.uiowa.edu/events/Events.htm.

Wave Packets, Multilinear Operators, and Carleson Theorems, Christoph Thiele, lecturer. May 23–28, Georgia Institute of Technology. Organizer: Gerd Mockenhaupt (404-894-5089, gerdm@math.gatech.edu). Web page: http://www.math.gatech.edu/~gerdm/cbms/.

The Combinatorics of Large Sparse Graphs, Fan Chung Graham, lecturer. June 7–12, California State University, San Marcos. Organizers: Radhika Ramamurthi (760-750-8095, ramamurt@csusm.edu) and Andre Kundgen (760-750-8070, akundgen@csusm.edu). Web page: http://www.csusm.edu/Math/CBMS.

—From a CBMS announcement

Call for Proposals for 2005 NSF-CBMS Regional Conferences

To stimulate interest and activity in mathematical research, the National Science Foundation (NSF) intends to support up to seven NSF-CBMS Regional Research Conferences in 2005. A panel chosen by the Conference Board of the Mathematical Sciences (CBMS) will make the selections from among the submitted proposals. In the thirty-five year history of this NSF-CBMS Regional Research Conference series, a total of 295 such conferences have been held.

Each five-day conference features a distinguished lecturer who delivers ten lectures on a topic of important current research in one sharply focused area of the mathematical sciences. The lecturer subsequently prepares an expository monograph based upon these lectures, which is normally published as a part of a regional conference series. Depending upon the conference topic, the monograph is published by the American Mathematical Society, the Society for Industrial and Applied Mathematics, or jointly by the American Statistical Association and the Institute of Mathematical Statistics.

Support is provided for about thirty participants at each conference, and the conference organizer invites both established researchers and interested newcomers, including postdoctoral fellows and graduate students, to attend.

The proposal due date is **April 8, 2004**. For further information on submitting a proposal, consult the CBMS Web page, http://www.cbmsweb.org/NSF/index.htm, or contact: CBMS, 1529 Eighteenth Street, NW, Washington, DC 20036; email: rosier@math.georgetown.edu or kolbe@math.georgetown.edu; telephone: 202-293-1170; fax: 202-293-341.

—From a CBMS announcement

Summer Program for Women Undergraduates

The 2004 Summer Program for Women in Mathematics (SPWM 2004) will take place at the George Washington University in Washington, DC, from June 28 to July 30, 2004. This is a five-week intensive program for mathematically talented undergraduate women who are completing their junior year and may be contemplating graduate study in mathematical sciences. Goals of this program are to communicate an enthusiasm for mathematics, to develop research skills, to cultivate mathematical self-confidence

and independence, and to promote success in graduate school.

Sixteen women will be selected. Each will receive a travel allowance, campus room and board, and a stipend of $1,500. The application deadline is **March 1, 2004**. Early applications are encouraged.

For eligibility and further information, please contact the director, Murli M. Gupta, mmg@gwu.edu, telephone 202-994-4857, or visit the program's website at http://www.gwu.edu/~math/spwm.html. Application materials can be printed from the website.

—Murli M. Gupta, George Washington University

Call for Nominations for Information-Based Complexity Prize and Young Researcher Award

The Prize for Achievement in Information-Based Complexity consists of $3,000 and a plaque. The members of the prize committee would appreciate nominations. However, a person does not have to be nominated to win the award. The achievement can be based on work done in a single year, a number of years, or over a lifetime. It can be published in any journal, number of journals, or monographs. The deadline for nominations for the prize is **March 31, 2004**.

The Information-Based Complexity Young Researcher Award is a new annual award to be given for significant contributions to information-based complexity by a young researcher. The prize will consist of $1,000 and a plaque. Any researcher who has not reached his or her thirty-fifth birthday by September 30 of the year of the award is eligible. The award committee is seeking nominations for the first award, although it is not necessary for an individual to be nominated in order to win the award. The award can be made for work done in a single year or over a number of years. The work may have been published in any journal or number of journals or monographs. The deadline for nominations for the award is **September 30, 2004**.

Nominations for both the Information-Based Complexity Prize and the Young Researcher Award should be sent to Joseph F. Traub at traub@cs.columbia.edu.

—Joseph Traub, Columbia University

Cryptology Paper Competitions

The journal *Cryptologia* has announced two paper competitions for undergraduate students: the Annual Undergraduate Paper Competition on Cryptology and the Annual Greg Mellen Memorial Cryptology Scholarship Prize. Papers may focus on any area of cryptology, including technical, historical, and literary subjects. Each competition offers a $300 prize and publication in *Cryptologia*.

Deadline for entries is **January 1, 2005**. Information may be obtained from *Cryptologia*, Department of Mathematical Sciences, United States Military Academy, West Point, NY 10996; email: Cryptologia@usma.edu; or from the website http://www.dean.usma.edu/math/pubs/cryptologia/.

—Cryptologia *announcement*

Clay Mathematics Institute Liftoff Program

The Clay Mathematics Institute (CMI) is currently accepting nominations for the 2004 Liftoff Program. Through this program CMI will employ recent Ph.D. recipients to carry out mathematics research for one month during the summer of 2004. Funds for travel to conferences are also available. The program provides a transition for young mathematicians from student to faculty member (or to a postdoctoral position).

Liftoff mathematicians are nominated 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.

If you know of an exceptional candidate you would like to nominate, please submit a nomination packet that includes: (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, office phone, home phone, email address, 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 should be sent to: Clay Mathematics Institute, One Bow Street, 4th Floor, Cambridge, MA 02138. The deadline for nominations to be received is **February 27, 2004**.

Further information is available on the CMI website, www.claymath.org/Research/Liftoff; by telephoning 617-995-2600; or by sending email to researchers@claymath.org.

—CMI announcement