Mathematics Opportunities

IAS/Park City Mathematics Institute

The Institute for Advanced Study (IAS)/Park City Mathematics Institute (PCMI) will hold its 2000 summer session from July 16–August 5, 2000. The topic is computational complexity theory. The organizers are Avi Wigderson (Institute for Advanced Study and Hebrew University) and Steven Rudich (Carnegie Mellon University).

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 Institute 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 Web site `http://www.admin.ias.edu/ma/default.htm`.

Applicants to all programs may apply for financial support. The deadline to apply is **February 15, 2000**.

—From an IAS/PCMI announcement

NSF Biocomplexity Competition

The National Science Foundation (NSF) has announced a special competition that provides an opportunity for mathematical scientists in all fields to engage in multidisciplinary scientific research. The competition, called "Biocomplexity: Integrated Research to Understand and Model Complexity among Biological, Physical, and Social Systems", will support integrated research to achieve better understanding of and to model complexity that arises from the interaction of biological, physical, and social systems. All proposing groups are required to include a quantitative expert, mathematician, or statistician.

The program will also support "incubation" activities that enable groups of researchers who have not historically collaborated on biocomplexity research to develop projects through focused workshops, virtual meetings, and other development and planning activities.

The program will award a total of $50 million in grants to support both research projects and incubation activities. Research projects will be awarded up to $600,000 per year for five years; incubation activities will be awarded up to a total of $100,000 for up to two years without renewal. Full proposals for both research and incubation activities must be received by **March 1, 2000**.

The full program announcement is available on the NSF Web site at `http://www.nsf.gov/cgi-bin/getpub?nsf0022/`. For more information on activities in the areas of mathematical and physical sciences, contact James L. Rosenberger, Statistics Program Director, National Science Foundation, 4201 Wilson Blvd., Room 1025, Arlington, VA 22230; telephone 703-306-1883; fax: 703-306-0555; e-mail: `jrosenbe@nsf.gov`.

—From an NSF announcement

Research Experiences for Undergraduates Sites for 2000

The Research Experiences for Undergraduates (REU) program of the National Science Foundation (NSF) provides opportunities for undergraduates to join research projects each summer to learn how basic research is conducted and to contribute to it. REU "sites" are established in all fields of science, mathematics, and engineering. Each site consists of a group of about ten undergraduates who work in research programs of the host institution. Each student is assigned to a specific research project and works closely with faculty, postdocs, and graduate students.

Undergraduate students are encouraged to apply to the REU sites. What follows is a tentative list of REU sites in the mathematical sciences for the summer of 2000, together

with the names of the site directors, who can be contacted for further information.

Auburn University: Discrete Mathematics, Computer Algebra; Overtoun Jenda, jendaov@mail.auburn.edu.

College of William and Mary: Matrix Analysis and Its Applications; David J. Lutzer, djlutz@mail.wm.edu, http://www.math.wm.edu/~lutzer/anncment.html.

Colorado School of Mines: Computer Science, Mathematics; Erik Van Vleck, byoung@mines.edu, http://www.mines.edu/Academic/macs/reu_index.html.

Cornell University: Analysis on Fractals, Complex Dynamics, Combinatorics; Robert S. Strichartz, reu@math.cornell.edu, http://math.cornell.edu/~math/Educate/REU/99REU.html.

Grand Valley State University: Chaotic Dynamical Systems, Fractal Geometry, Differential Equations, Linear Algebra; Steven Schlicker, schlicks@gvsu.edu, http://www.gvsu.edu/mathstat/reu/.

Hope College: Algebra, Dynamical Systems, Probability and Number Theory; Tim Pennings, pennings@math.hope.edu, http://www.math.hope.edu/reu/reu.html.

Indiana University: Algebra, Topology, Analysis, Probability, and Applied Mathematics; Daniel Maki, reu@indiana.edu, http://www.math.indiana.edu/reu/home.html.

Iowa State University: Numerical Analysis, Scientific Computing; Janet Peterson, jspeters@iastate.edu, http://www.math.iastate.edu/reu.html.

Michigan Technological University: Probability, Combinatorics, Number Theory, Statistics, Algorithms and Geometry; Anant P. Godbole, anant@mtu.edu, http://www.math.mtu.edu/~anant/reu/.

Mount Holyoke College: Number Theory, Algebraic Geometry and Applied Analysis; Alan H. Durfee, reu@mtholyoke.edu, http://www.mtholyoke.edu/acad/math/reu/.

Northern Arizona University: Combinatorics, Applied Math, Statistics; Catherine A. Roberts, Catherine.Roberts@nau.edu, http://odin.math.nau.edu/REU/.

Oregon State University: Analysis of Algorithms, Geometry, Population Dynamics, and Topology; Dennis J. Garity, reu@math.orst.edu, http://ucs.orst.edu/~garityd/REU/.

Pennsylvania State University Erie, The Behrend College: Mathematical Biology; J. Carl Panetta, panetta@wagner.bd.psu.edu, http://www.pserie.psu.edu/science/math/REU/index.html.

Rose-Hulman Institute of Technology: Computational Group Theory, Hyperbolic Geometry; S. Allen Broughton, allen.broughton@rose-hulman.edu, http://www.rose-hulman.edu/Class/ma/HTML/REU/NSF-REU.html.

State University of New York, Potsdam: Group Theory, Graph Theory, Topology; Kazem Mahdavi, mahdavk@potsdam.edu, http://www.clarkson.edu/~mcs/reu.html.

Trinity University: Dynamical Systems, Algebra and Statistics; Scott Chapman, schapman@trinity.edu, http://www.math.trinity.edu/mathematics/reu99.htm.

Tulane University: Geometry and Topology; Morris Kalka, reu@math.tulane.edu, http://math.tulane.edu/reu.html.

University of Houston: Geometry, Analysis, Number Theory and Numerical Analysis; Barbara Keyfitz, blk@math.uh.edu, http://www.math.uh.edu/~dean/REU/index.html.

University of Idaho: Discrete Mathematics; Dan Schaal, schaald@ur.sdstate.edu, http://www.sdstate.edu/ma24/http/idahoreu.html.

University of Maryland Eastern Shore: Parallel Numerical Computing; Daniel I. Okunbor, dokunbor@mcs.umes.umd.edu, http://hawk.umes.edu/dokunbor/reu/.

University of Minnesota, Duluth: Discrete Mathematics, Combinatorics and Graph Theory; Joseph A. Gallian, jgallian@d.umn.edu, http://www.d.umn.edu/~jgallian/.

University of Tennessee: Selected Topics in Pure and Applied Mathematics; Suzanne Lenhart, lenhart@math.utk.edu, http://www.math.utk.edu/Docs/reuflyer.html.

University of Washington: Inverse Problems; James A. Morrow, morrow@math.washington.edu, http://www.math.washington.edu/~morrow/reu99/reu.html.

Washington State University: Applied Mathematics, Environmental Science; Valipuram S. Manoranjan, ziya@wsu.edu, http://www.sci.wsu.edu/math/faculty/mano/VSManoranjan.html.

Williams College: Geometry; Colin Adams, colin.adams@williams.edu, http://www.williams.edu/Mathematics/SMALL.html.

Worcester Polytechnic Institute: Applied/Industrial Mathematics; Bogdan Vernescu, vernescu@wpi.edu, http://www.WPI.EDU/~cims/reu/index.htm.

Updated information is available on the Web site of the NSF's Division of Mathematical Sciences, http://www.nsf.gov/mps/bdms/reulist.htm. General information on the REU program, as well as instructions for submitting proposals, is available on the NSF Web site, http://www.nsf.gov/home/crssprgm/reu/start.htm.

—From an NSF announcement

2000 Summer Program for Women in Mathematics

The George Washington University has announced the 2000 Summer Program for Women in Mathematics (SPWM 2000) to be held July 1–August 5, 2000.

SPWM 2000 is an intensive five-week program for mathematically talented undergraduate women who are completing their junior years and may be contemplating graduate study in the mathematical sciences. The 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 $1,250. The application deadline is **March 1, 2000**.

For further information see the university's Web site, http://www.gwu.edu/~math/spwm.html, or contact the codirectors, Murli M. Gupta (mmg@gwu.edu) or E. Arthur Robinson Jr. (robinson@gwu.edu), Department of Mathematics, George Washington University, Washington, DC 20052; telephone 202-994-4857; fax 202-994-6760.

—Murli Gupta, George Washington University

Maria Mitchell Women in Science Award

The Maria Mitchell Association offers an annual award to recognize an individual, program, or organization that encourages the advancement of girls and women in studies and careers in science and technology. Maria Mitchell (1818–1889) was the first woman astronomer and first woman astronomy professor in the United States.

The award may be given in the natural and physical sciences, mathematics, engineering, computer science, or technology. The winner will be chosen by a national jury of distinguished educators and scientists and will receive a cash award of $5,000. Funding for the award is provided through the year 2000 by the William R. Kenan Jr. Fund for Engineering, Technology, and Science.

Guidelines and nomination forms are available from the Association's Web site at http://www.mmo.org/, or by contacting the Maria Mitchell Women in Science Award Committee at the Maria Mitchell Association, 2 Vestal Street, Nantucket, MA 02554; telephone 508-228-9198. The deadline for nominations is **April 28, 2000**.

—From a Maria Mitchell Association announcement

Project NExT: New Experiences in Teaching

Project NExT (New Experiences in Teaching) is a program for new or recent Ph.D.'s in the mathematical sciences that addresses a broad range of professional issues, focusing on the teaching and learning of undergraduate mathematics. Faculty who are just beginning or just completing their first year of full-time teaching at the college/university level are invited to apply to become Project NExT fellows.

The application deadline is **April 14, 2000**. For more information, consult the Project NExT home page (http://archives.math.utk.edu/projnext/) and see the article in the February issue of *Notices*, page 217.

—Elaine Kehoe