Mathematics Opportunities

NSF Postdoctoral Research Fellowships

The National Science Foundation (NSF) awards Mathematical Sciences Postdoctoral Research Fellowships for research in areas of the mathematical sciences, including applications to other disciplines. Awardees are permitted to choose research environments that will have maximal impact on their future scientific development. Stipends provide support for two nine-month academic years and six summer months, for a total of twenty-four months.

The deadline for applications is **October 18, 2002**. For more information and application instructions, see the NSF website at `http://www.fastlane.nsf.gov/d11/D11Menu.htm`.

—From an NSF announcement

Call for VIGRE Proposals

The Division of Mathematical Sciences (DMS) of the National Science Foundation has announced a new competition for Grants for Vertical Integration of Research and Education in the Mathematical Sciences, known as VIGRE grants.

VIGRE grants are designed to allow departments in the mathematical sciences to carry out innovative educational programs in which research and education are integrated and in which undergraduates, graduate students, postdoctoral fellows, and faculty are mutually supportive. The goals of VIGRE are: (1) to prepare undergraduate students, graduate students, and postdoctoral fellows for the broad range of opportunities available to individuals with training in the mathematical sciences; and (2) to encourage departments in the mathematical sciences to initiate or improve education activities that lend themselves to integration with research, especially activities that promote the interaction of scholars across boundaries of academic age and departmental standing.

The deadline for proposals for the new competition has not been announced, but it will be in late July 2002.

At present the DMS funds about thirty VIGRE grants. The number of grants to be awarded in the new competition will be determined based on the quality of proposals received. For further information, consult the DMS website, `http://www.nsf.gov/mps/divisions/dms/`.

—Allyn Jackson

Fulbright Lecturing/Research Grants

The Fulbright Scholar Program is offering lecturing/research awards in some 140 countries for the 2003–04 academic year. Opportunities are available for college and university faculty, professionals from business and government, independent scholars, and others. While foreign language skills are needed in some countries, most Fulbright assignments are in English.

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.

Application deadlines for the 2003–04 awards are: **May 1, 2002**, for Fulbright Distinguished Chair awards in Europe, Canada, and Russia; and **August 1, 2002**, for Fulbright traditional lecturing and research grants worldwide. 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; e-mail: `apprequest@cies.iie.org`; World Wide Web `http://www.cies.org/`.

The Fulbright Scholar Program is sponsored by the U.S. Department of State, Bureau of Educational and Cultural Affairs.

—From a CIES Announcement

NSF Internships for Public Science Education

In order to promote the involvement of the research community in public educational activities, the Directorate for Mathematical and Physical Sciences (MPS) of the National Science Foundation (NSF) has announced the MPS Internships in Public Science Education (IPSE) program. IPSE is intended to bring current science research results from MPS disciplines to the public by promoting partnerships between the MPS research community and specialists in public science education. The IPSE activity will provide support for undergraduate and graduate students and kindergarten through twelfth-grade teachers to work in conjunction with MPS research scientists and with professionals at science centers and museums on projects in public science education.

Proposals will be accepted from academic institutions in the United States and its territories, from science centers or museums, and from MPS-funded centers, facilities, and institutes. An academic institution is defined as a college or university granting degrees (two- or four-year) in any of the MPS disciplines: astronomy, chemistry, materials research, mathematical sciences, and physics. Science centers or museums are defined to be nonprofit organizations whose primary mission is public science education, that is, science centers, museums, visitor centers, and so forth, with programs or activities in one or more of the MPS disciplines. Proposals must show evidence of partnerships between academic institutions and science centers or museums. Proposals from MPS-funded centers, facilities, or institutes must show the active collaboration of both research scientists and educators from the organization. Partnerships outside the institution are encouraged. A single individual should be designated as principal investigator, with at least one individual from each participating organization either designated as co-PI or in some other way clearly involved at an equivalent level of participation.

The deadline for applications is **May 7, 2002**. For more information, see the NSF website at `http://www.nsf.gov/cgi-bin/getpub?nsf02064/`.

—From an NSF announcement

Research Experiences for Undergraduates

Each summer, the Research Experiences for Undergraduates (REU) program of the National Science Foundation (NSF) provides opportunities for undergraduate students to participate in research projects. 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, postdoctoral researchers, and graduate students.

Undergraduate students are encouraged to apply. A tentative list of sites in the mathematical sciences for the year 2002 is given below, together with the names of the site directors, who can be contacted for further information.

California Polytechnic State University: Operator theory and combinatorics; Jonathan Shapiro, `jshapiro@calpoly.edu`.

California State University, San Bernardino: Combinatorics, knot theory; Joseph Chavez, `jchavez@csusb.edu`.

Central Michigan University: Combinatorics, geometry, graph theory, and matrix analysis; Sivaram Narayan, `sivaram.narayan@cmich.edu`.

College of William and Mary: Matrix analysis and its applications; David J. Lutzer, `lutzer@math.wm.edu`.

Colorado School of Mines: Computer science, mathematics; Erik Van Vleck, `byoung@mines.edu`.

Cornell University: Analysis on fractals, lattice tilings and coverings, and computational discrete geometry; Robert S. Strichartz, `reu@math.cornell.edu`.

East Tennessee State University: Probability, combinatorics, number theory, statistics, algorithms, and geometry; Anant P. Godbole, `godbolea@etsu.edu`.

Hope College: Algebra, dynamical systems, probability, and number theory; Tim Pennings, `pennings@hope.edu`.

Indiana University: Selected topics in pure and applied mathematics; Allan Edmonds, `edmonds@indiana.edu`.

James Madison University: Abstract algebra, mathematical modeling, statistical inference; Leonard VanWyk, `vanwyk@math.jmu.edu`.

Lafayette College: Applied combinatorics, graph theory, and algebra/geometry/number theory; Gary Gordon, `gordong@lafayette.edu`.

Louisiana State University, Baton Rouge: Braids, groups, number theory, and zeta functions; Neal W. Stoltzfus, `stoltz@math.lsu.edu`.

Mount Holyoke College: Number theory, algebraic geometry, and applied analysis; Alan H. Durfee, `reu@mtholyoke.edu`.

Northern Arizona University: Combinatorics, applied math, statistics; Terence R. Blows, `Terence.Blows@nau.edu`.

Oregon State University: Analysis of algorithms, geometry, population dynamics, and topology; Dennis J. Garity, `reu@math.orst.edu`.

Pennsylvania State University, Erie, The Behrend College: Mathematical biology; Joseph Paullet, `paullet@lagrange.bd.psu.edu`.

Rose-Hulman Institute of Technology: Computational group theory, hyperbolic geometry; S. Allen Broughton, `allen.broughton@rose-hulman.edu`.

Southwest Texas State University: Abstract algebra; Susan Morey, `morey@swt.edu`.

State University of New York, Potsdam: Group theory, graph theory, topology; Kazem Mahdavi, `mahdavk@potsdam.edu`.

Texas A&M University: Algebra and applied analysis; Ed Letzter, `letzter@math.tamu.edu`.

Trinity University: Mathematics; Scott Chapman, `schapman@trinity.edu`.

University of Houston: Geometry, analysis, number theory, and numerical analysis; Ed Dean, `dean@math.uh.edu`.

University of Idaho: Discrete mathematics and permutation puzzles; Arie Bialostocki, `reu@uidaho.edu`.

University of Minnesota, Duluth: Discrete mathematics, combinatorics, and graph theory; Joseph A. Gallian, `jgallian@d.umn.edu`.

University of Puerto Rico, Humacao: Computational algebra, wavelets, fluid dynamics, Groebner bases; Ivelisse M. Rubio, `ive@cuhwww.upr.clu.edu`.

University of Tennessee: Selected topics in pure and applied math; Suzanne Lenhart, `lenhart@math.utk.edu`.

University of Washington: Inverse problems; James A. Morrow, `morrow@math.washington.edu`.

Williams College: Geometry; Colin Adams, `colin.adams@williams.edu`.

Worcester Polytechnic Institute: Applied/industrial mathematics; Bogdan Vernescu, `vernescu@wpi.edu`.

Updated information is available on the website of the NSF's Division of Mathematical Sciences, `http://www.nsf.gov/home/crssprgm/reu/reu98dms.htm`. General information on the REU program, as well as instructions for submitting proposals, is available on the NSF website, `http://www.nsf.gov/home/crssprgm/reu/start.htm`.

—From an NSF announcement

News from Oberwolfach

The Mathematisches Forschungsinstitut Oberwolfach (MFO), located in Oberwolfach, Germany, has appointed as director Gert-Martin Greuel of the Universität Kaiserslautern. He replaces Matthias Kreck of the Universität Heidelberg, who has held the post since 1994.

Greuel received his Ph.D. in 1973 from the Universität Göttingen under the direction of Egbert Brieskorn and his *Habilitation* in 1980 from the Universität Bonn. In 1981 Greuel was appointed as a full professor at the Universität Kaiserslautern, and since 1993 he has headed the Center for Computer Algebra there. He has been involved in several research projects that received funding from the German government and the European Community, including serving as the German coordinator for the European Singularity Network. Greuel has organized many conferences in Germany, including four at Oberwolfach. He is also one of the developers of Singular, a computer algebra system for polynomial computations with special emphasis on the needs of commutative algebra, algebraic geometry, and singularity theory. His areas of research are singularity theory, computer algebra, algebraic geometry, and complex analysis.

Greuel started as director of Oberwolfach on February 1, 2002. For more information on the institute and its activities, visit the website `http://www.mfo.de/`.

—MFO announcement