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# Mathematics Opportunities

## Mathematics Awareness Month

This year Mathematics Awareness Week expands to become Mathematics Awareness Month (MAM). Throughout April, MAM activities will take place across the United States to promote this year's theme, Mathematics and Biology.

MAM, a Joint Policy Board for Mathematics project, has received first-time corporate sponsorship support from Texas Instruments, Inc. (TI). TI is producing and distributing posters this year, entitled "Vital Rhythms, Mathematics in the Heart". The development of the poster was supervised by Professor De Witt Sumners and John Guckenheimer, president of SIAM. The visual content (gif files) for the poster represents work done by Professor Jim Keener of the University of Utah and A. V. Panfilov of the University of Utrecht. Professor Keener kindly contributed an essay on "Mathematics in the Heart". Complete information on Mathematics Awareness Month 1999 is available at <http://forum.swarthmore.edu/mam/>.

—*Timothy Goggins*

## National Institute for Science Education (NISE) Fellowships

The National Institute for Science Education (NISE), funded by the National Science Foundation and based at the University of Wisconsin-Madison, has openings for two to three one-year fellows for the 1999-2000 College Level One (CL-1) Institute.

The 1999-2000 CL-1 Institute will address the use of technology in introductory undergraduate science, math-

ematics, engineering, and technology (SMET) courses. The goal of the CL-1 Technology Institute is to provide faculty with "principles of best practice" for the use of technology in introductory SMET courses for both majors and nonmajors.

Fellows are expected to have a record of research and/or extensive classroom practice related to use of technology in introductory SMET courses. Responsibilities will include research and writing to produce a synthesis of present knowledge and a set of principles of best practice, creation of dissemination tools for postsecondary faculty and administrators, organization of seminars and symposia, and extensive interaction with other fellows and NISE members.

Requirements are a doctorate in science, mathematics, engineering, social science, or education. Possible candidates include faculty who teach SMET courses and have experience using technology in their classrooms, education researchers with an expertise in instructional technology, and members of faculty development programs. It is anticipated that one of the fellows will have expertise in the area of high-performance computing and will be supported by the Education, Outreach, and Training component of the NSF-funded Partnership for Advanced Computational Infrastructure. Residence at UW-Madison is preferred.

Applications are reviewed continuously until all positions are filled. Further information and application instructions are available on the World Wide Web at [www.wcer.wisc.edu/nise/nise\\_fellows/cl1\\_team\\_fellows.html](http://www.wcer.wisc.edu/nise/nise_fellows/cl1_team_fellows.html) or from the College Level One Team, National Institute for Science Education, 1025 West Johnson Street, Suite 735, Madison, WI 53706; telephone 608-263-5681; fax 608-262-7428.

—*From an NISE Announcement*

## Travel/Host Grants for Research

The Office for Central Europe and Eurasia of the National Research Council offers grants to individual American specialists who plan to establish new research partnerships with their colleagues from Central and Eastern Europe and the Newly Independent States. This program is designed primarily to prepare these new partnerships for competition in programs of the National Science Foundation (NSF).

U.S. citizens and permanent residents are eligible to apply. Because the program is designed to support new collaborations, no more than two grants will be awarded per application in a four-year period. Applicants who have received their doctoral degrees within the past six years will receive special consideration, as will applicants wishing to work with colleagues in less frequently represented countries or regions. Those who hold current NSF grants and are eligible for an NSF international supplement should not apply to this program.

Short-Term Project Development Grants (\$2,500–\$2,750) support American specialists who wish to host or visit their colleagues in Central and Eastern Europe and the Newly Independent States in order to prepare collaborative research proposals for submission to the NSF. Long-Term Grants (\$3,300–\$15,300) support American specialists who wish to host or visit their colleagues in these regions for research collaboration for a period of one to six months. Significant publications jointly authored by program participants as a result of their long-term visits are expected.

The deadlines for submission of proposals are: **April 5, 1999** (Project Development only; notification in June 1999), and **July 30, 1999** (Long-Term only; notification in January 2000). For further information and application materials, contact: Office of International Affairs, National Research Council, 2101 Constitution Avenue, NW (FO 2060), Washington, DC 20418; telephone 202-334-3680; fax 202-334-2614; e-mail: [oce@nas.edu](mailto:oce@nas.edu); World Wide Web <http://www2.nas.edu/oia/22da.html>.

—From an NRC 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 first event for the 1999–2000 fellows will be a workshop, July 28–July 30, 1999, just prior to the summer MAA meeting (the MathFest) in Providence, RI (July 31–August

2, 1999). At this workshop and at Project NExT sessions during the MathFest, fellows will explore and discuss a broad range of issues that are of special relevance to beginning faculty, including: new approaches to teaching calculus and precalculus, alternative methods of teaching and assessing student learning, using technology in the classroom, perspectives from pedagogical research, writing grant proposals, and balancing teaching and research.

Following the workshop, Project NExT fellows will attend the summer MAA MathFest, participate in all the opportunities of that meeting, and choose among special short courses designed for the fellows. During the following year, the fellows will participate in a network that links them with one another and with distinguished teachers of mathematics; in special events at the Joint Mathematics Meetings in Washington, DC, January 19–22, 2000; and in a second workshop in the summer of 2000.

Approximately sixty Project NExT Fellows will be selected for the 1999–2000 year. Funding for room and board at the workshop in Providence and for the short courses at the summer 1999 MathFest will be provided for participants. Institutions at which the fellows are employed are expected to provide financial assistance for travel and attendance at the national meetings. Limited funds are available to assist those institutions that are unable to afford full or partial support.

The application deadline is **April 16, 1999**. For more information, consult the Project NExT home page (<http://archives.math.utk.edu/projnext/>), or contact one of the following: T. Christine Stevens, Director, Project NExT, Department of Mathematics and Computer Science, Saint Louis University, 221 North Grand Blvd., St. Louis, MO 63103; telephone 314-977-2444; e-mail: [stevensc@slu.edu](mailto:stevensc@slu.edu); Joseph Gallian, Codirector, Department of Mathematics and Statistics, University of Minnesota-Duluth, Duluth, MN 55812; telephone 218-726-7576; e-mail: [jgallian@d.umn.edu](mailto:jgallian@d.umn.edu); or Aparna Higgins, Codirector, Department of Mathematics, University of Dayton, Dayton, OH 45469; telephone 937-229-2103; e-mail: [higgins@saber.udayton.edu](mailto:higgins@saber.udayton.edu). Project NExT is sponsored by the Mathematical Association of America with partial support from the Exxon Education Foundation

—Project NExT announcement

## Request for Proposals for 2000 NSF-CBMS Regional Conferences

The National Science Foundation (NSF), with the sponsorship of the Conference Board of the Mathematical Sciences (CBMS), intends to support up to five NSF-CBMS Regional Research Conferences in 2000.

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 on these lectures, which, depending on the topic, is published either by the AMS, by the Society for Industrial and Applied Mathematics (SIAM), or jointly by the American Statistical Association and the Institute of Mathematical Statistics. Support is provided for about thirty participants at each conference, including postdoctoral researchers and graduate students.

Colleges and universities with at least some research competence in the field of the proposal are eligible to apply. Because a major goal of these conferences is to attract new researchers into the field of the conference and to stimulate new research activity, institutions that are interested in upgrading or improving their research efforts are especially encouraged to apply.

Proposals should reach the NSF by **April 12, 1999**. For further information on the NSF-CBMS Regional Conferences and guidelines for preparing proposals, contact: Conference Board of the Mathematical Sciences, 1529-18th Street, NW, Washington, DC 20036; telephone 202-293-1170; fax 202-265-2384; World Wide Web <http://www.maa.org/cbms/nsf/2000nsf.html>; e-mail: kolbe@math.georgetown.edu or rosier@math.georgetown.edu. See also the announcement of the upcoming NSF-CBMS Regional Conferences, to be held in the summer of 1999, which appeared in the February 1999 *Notices*.

—From a CBMS announcement

## 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 (1818–89) 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.

Nomination forms are available from the Maria Mitchell Women in Science Award Committee at the Maria Mitchell Association. Nominations must be postmarked by **March 30, 1999**. The award winner will be announced by June 15, 1999. For further information, contact the Maria Mitchell Association, 2 Vestal Street, Nantucket, MA 02554; telephone 508-228-9198; World Wide Web [http://www.mmo.org/wis\\_desc99.shtml](http://www.mmo.org/wis_desc99.shtml).

—From a Maria Mitchell Association announcement