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# Mathematics Opportunities

## Call for Nominations for TWAS Prizes

The Academy of Sciences for the Developing World (TWAS) prizes will be awarded to individual scientists in developing countries in recognition of outstanding contributions to knowledge in eight fields of science.

The awards are given each year in each of the following fields: mathematics, medical sciences, biology, chemistry, physics, agricultural sciences, earth sciences, and engineering sciences. Each award consists of a prize of US\$15,000 and a plaque. Candidates for the awards must be scientists who have been working and living in a developing country for at least ten years.

The deadline for nominations for the 2009 prizes is **March 31, 2009**. Nomination forms should be sent to: TWAS Prizes, c/o The Abdus Salam International Centre for Theoretical Physics (ICTP), Strada Costiera 11, I-34014 Trieste, Italy; fax: 39 040 2240 698; email: [prizes@twas.org](mailto:prizes@twas.org). Further information is available on the World Wide Web at <http://www.twas.org/>.

—From a TWAS announcement

## NSF Program in Foundations of Data and Visual Analytics

The National Science Foundation (NSF) and the Department of Homeland Security (DHS) announce a new program, Foundations of Data and Visual Analytics (FODAVA). Research in data and visual analytics seeks to facilitate analytical reasoning through the use of interactive visual interfaces. To be successful, this research must extend beyond traditional scientific and information visualization to include statistics, mathematics, knowledge representation, management and discovery technologies, cognitive and perceptual sciences, decision sciences, and more.

Proposals should focus on creating fundamental research advances that will be widely applicable across scientific, engineering, commercial, and governmental domains that utilize visualization and analytics to gain insight and derive knowledge from massive, often streaming, dynamic,

ambiguous, and possibly conflicting data sets. Research activities proposed should emphasize novel data transformations while also demonstrating research relevance to visual analytics systems by including a research component in areas such as, but not limited to, visualization, human-computer interaction, and cognitive psychology.

The deadline for full proposals is **April 2, 2009**. For more information and a list of cognizant program directors, see the website [http://www.nsf.gov/pubs/2009/nsf09525/nsf09525.htm?govDe1=USNSF\\_25](http://www.nsf.gov/pubs/2009/nsf09525/nsf09525.htm?govDe1=USNSF_25).

—From an NSF announcement

## DMS Workforce Program

The Division of Mathematical Sciences (DMS) of the National Science Foundation (NSF) welcomes proposals for the Workforce Program in the Mathematical Sciences. The long-range goal of the program is to increase the number of well-prepared U.S. citizens, nationals, and permanent residents successfully pursuing careers in the mathematical sciences and in other NSF-supported disciplines. Of primary interest are activities centered on education that broaden participation in the mathematical sciences through research involvement for trainees at the undergraduate through postdoctoral educational levels. The program is particularly interested in activities that improve recruitment and retention, educational breadth, and professional development. The submission period for unsolicited proposals is **May 15–June 15, 2009**. For more information and a list of cognizant program directors, see the website [http://www.nsf.gov/funding/pgm\\_summ.jsp?pims\\_id=503233](http://www.nsf.gov/funding/pgm_summ.jsp?pims_id=503233).

—From a DMS announcement

## Call for Proposals for 2010 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 2010. A panel chosen by the Conference Board of the Mathematical Sciences will make the selections from among the submitted proposals.

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 is normally published as a part of a regional conference series. Depending on the conference topic, the monograph will be published by the American Mathematical Society, by 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 both established researchers and interested newcomers, including postdoctoral fellows and graduate students, are invited to attend. The proposal due date is **April 24, 2009**.

For further information on submitting a proposal, consult the CBMS website, [http://www.cbmsweb.org/NSF/2010\\_call.htm](http://www.cbmsweb.org/NSF/2010_call.htm), or contact: Conference Board of the Mathematical Sciences, 1529 Eighteenth Street, NW, Washington, DC 20036; telephone: 202-293-1170; fax: 202-293-3412; email: [lkolbe@maa.org](mailto:lkolbe@maa.org) or [rosier@georgetown.edu](mailto:rosier@georgetown.edu).

—From a CBMS announcement

## NSF-CBMS Regional Conferences, 2009

With funding from the National Science Foundation (NSF), the Conference Board of the Mathematical Sciences (CBMS) will hold four NSF-CBMS Regional Research Conferences during the summer of 2009.

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 on these lectures.

Support for about thirty participants will be provided for each conference. Both established researchers and interested newcomers, including postdoctoral fellows and graduate students, are invited to attend.

Information about an individual conference may be obtained by contacting the conference organizer. The conferences to be held in 2009 are as follows.

*May 18–22, 2009: Topology, C\*-Algebras, and String Duality.* Jonathan Rosenberg, lecturer. Texas Christian University. Organizers: Greg Friedman, 817-257-6343, email: [g.friedman@tcu.edu](mailto:g.friedman@tcu.edu); Robert Doran, 817-257-7335, email: [r.doran@tcu.edu](mailto:r.doran@tcu.edu); conference website: <http://faculty.tcu.edu/gfriedman/CBMS>.

*May 18–22, 2009: Adaptive Finite Element Methods for Partial Differential Equations.* Rolf Rannacher, lecturer. Texas A&M University. Organizers: Guido Kanschat, 979-845-

7632, email: [kanschat@tamu.edu](mailto:kanschat@tamu.edu); Wolfgang Bangerth, 979-845-6393, email: [bangerth@math.tamu.edu](mailto:bangerth@math.tamu.edu); conference website: <http://www.math.tamu.edu/~kanschat/cbms/>.

*July 20–24, 2009: Families of Riemann Surfaces and Weil-Petersson Geometry.* Scott A. Wolpert, lecturer. Central Connecticut State University. Organizers: Jeffrey K. McGowan, 860-832-2850, email: [jmcgowan@mac.com](mailto:jmcgowan@mac.com); Eran Makover, 860-832-2843, [makover@ccsu.edu](mailto:makover@ccsu.edu); conference website: <http://www.math.ccsu.edu/CBMS.html>.

*August 3–7, 2009: Algebraic Topology in Applied Mathematics.* Robert Ghrist, lecturer. Cleveland State University. Organizers: Peter Bubenik, 216-687-4688, email: [p.bubenik@csuohio.edu](mailto:p.bubenik@csuohio.edu); John Oprea, 216-687-4702, email: [j.oprea@csuohio.edu](mailto:j.oprea@csuohio.edu); conference website: [http://academic.csuohio.edu/bubenik\\_p/cbms2009/](http://academic.csuohio.edu/bubenik_p/cbms2009/).

—From a CBMS announcement

## Project NExT: New Experiences in Teaching

Project NExT (New Experiences in Teaching) is a professional development program for new and recent Ph.D.'s in the mathematical sciences (including pure and applied mathematics, statistics, operations research, and mathematics education). It addresses all aspects of an academic career: improving the teaching and learning of mathematics, engaging in research and scholarship, and participating in professional activities. It also provides the participants with a network of peers and mentors as they assume these responsibilities. In 2009 about seventy faculty members from colleges and universities throughout the country will be selected to participate in a workshop preceding the Mathematical Association of America (MAA) summer meeting, in activities during the summer MAA meetings and the Joint Mathematics Meetings in January, and in an electronic discussion network. Faculty for whom the 2009–2010 academic year will be the first or second year of full-time teaching (post-Ph.D.) at the college or university level are invited to apply to become Project NExT Fellows.

The application deadline is **April 17, 2009**. For more information see the Project NExT website, <http://archives.math.utk.edu/projnext/>, or contact Christine Stevens, director, at [stevensc@slu.edu](mailto:stevensc@slu.edu). Project NExT is a program of the MAA. It receives major funding from the ExxonMobil Foundation, with additional funding from the Dolciani-Halloran Foundation, the Educational Advancement Foundation, the American Mathematical Society, the American Statistical Association, the National Council of Teachers of Mathematics, Texas Instruments, the American Institute of Mathematics, the Association of Mathematics Teacher Educators, the Association for Symbolic Logic, W. H. Freeman Publishing Company, Maplesoft, John Wiley & Sons, MAA Sections, and the Greater MAA Fund.

—From a Project NExT announcement