Mathematics Opportunities

Proactive Recruitment in Introductory Science and Mathematics (PRISM)

The National Science Foundation (NSF) seeks proposals for its program in Proactive Recruitment in Introductory Science and Mathematics (PRISM). Proposals should emphasize improving the lower-division undergraduate (freshman and sophomore) experience in mathematics and statistics, better preparing undergraduates to major in science, engineering, mathematics, and statistics. Of particular interest are activities that share the excitement of science and mathematics with students, inspiring them to pursue and persist in these often demanding areas. Activities should help students understand both the central role of the mathematical sciences in fostering progress in other scientific disciplines and the continuing active development of the mathematical sciences themselves. Projects must include strong plans to proactively identify and recruit capable lower-division students with realistic chances of success in science and mathematics majors, especially those who might not otherwise pursue studies in these fields. The deadline for full proposals is **March 8, 2010.** For more information see the website `http://www.nsf.gov/pubs/2010/nsf10511/nsf10511.htm`.

—From an NSF announcement

Call for Nominations for Prizes of the Academy of Sciences for the Developing World

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.

Eight awards are given each year in the fields of 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 2010 prizes is **March 31, 2010**. Nomination forms should be sent to: TWAS Prizes, c/o The Abdus Salam International Centre for Theoretical Physics (ICTP), Strada Costiera 11, 1-34151 Trieste, Italy; fax: 39 040 2240-698; email: `prizes@twas.org`. Further information is available on the World Wide Web at `http://www.twas.org/`.

—From a TWAS announcement

Fields-MITACS Undergraduate Summer Research Program

The Fields Institute announces a summer research program for undergraduates to be held during the summer of 2010 at the Fields Institute in downtown Toronto. The program will provide support for up to thirty students to take part in research programs supervised by leading researchers from the Fields Institute sponsoring universities as well as visiting researchers at the Institute. It is planned to be the first in a continuing series of such summer undergradute programs.

Students accepted into the program will receive student residence housing on the campus of the University of Toronto from July 3 to August 28, 2010; financial support for travel to Toronto; a per diem for meals and medical coverage for non-Canadian students during their stay.

Students will be assigned to work on research projects in groups of three or four. It is expected that several of the projects will be related to the Fields summer thematic program on the spread of drug resistance in infectious diseases that will be held at the Institute during July and

August, but other topics will also be the focus of student research groups. In some cases, students may also have the opportunity to spend a week off-site at the home campus of a project supervisor.

Undergraduate students in mathematics-related disciplines are encouraged to apply by: 1) sending a cover letter with a brief personal statement; 2) having an official transcript from their university sent directly to the Fields Institute; and 3) arranging for a letter of reference to be sent to Fields.

The deadline for applications is **February 20, 2010**. Send material to:

Alison Conway, Manager of Scientific Programs
MITACS-Fields Summer Undergraduate Research Program
222 College Street
Toronto, Ontario
Canada M5T 3J1

Note: Students requiring visas for travel to Canada will need to make their own arrangements to obtain the necessary documents. For more information see: www.fields.utoronto.ca/programs/scientific/10-11/summer-research.

—Fields Institute announcement

Correction

The photograph below, which appeared in the article "Kalman receives National Medal of Science", *Notices*, January 2010, should have been credited to Ryan K. Morris/National Science & Technology Medals Foundation.

—Sandy Frost

About the Cover

Cryptography issue

This cover is based on the Enigma rotor. The original image was found at the website http://en.wikipedia.org/wiki/File:Enigma-rotor-stack.jpg.

The Enigma photo was translated into ASCII using the Ascii Art Generator from Glass-Giant. The cover image was composed using GIMP. Cover work due to Geir Arne Hjelle.

Correction

I am grateful to Robert Friedman for pointing out an error on page 813 of the article "The Dixmier-Douady invariant for dummies", *Notices*, August 2009. I stated that the vector bundle $V \to X$ used in the construction of $End(V)$ may be taken to have trivial first Chern class. This is correct if V is a line bundle but not in general, since for n-dimensional bundles the correct formula is $c_i(V \otimes L) = c_1(V) + nc_1(L)$. Part 2b of the following theorem must be similarly adjusted.

—Claude Schochet