
Mathematics People

National Academy of Sciences Awards Announced

Two mathematicians have been honored with National Academy of Sciences (NAS) Awards for 2003. DAVID A. FREEDMAN, of the University of California, Berkeley, received the John J. Carty Award for the Advancement of Science, given this year for achievement in statistics. Freedman was selected for “his profound contributions to the theory and practice of statistics, including rigorous foundations for Bayesian inference and trenchant analysis of census adjustment.” The award, which carries a cash prize of \$25,000, is given annually for distinguished accomplishment in various fields of science. DAVID R. KARGER, of the Massachusetts Institute of Technology, received the NAS Award for Initiatives in Research, given annually in a field supporting information technology; this year the prize was awarded in algorithms and computation. Karger was selected “for the elegant use of randomness to design improved algorithms for classically studied problems such as network flow, graph coloring, finding minimum trees, and finding minimum cuts.” The prize carries a cash award of \$15,000.

—From an NAS announcement

Chern Receives 2002 Lobachevskii Medal

On December 1, 2002, Kazan State University awarded the Lobachevskii Medal for Distinguished Works in Geometry to SHIING-SHEN CHERN, honorary director of the Nankai Institute of Mathematics, Tianjin, China.

The Lobachevskii Medal, established in 1991 by the government of the Soviet Union, is awarded every five years on December 1, the birthday of N. I. Lobachevskii. The statutes of the Lobachevskii Medal also permit awarding of honorary diplomas from Kazan State University to some of the nominees for the medal.

The first Lobachevskii Medal was awarded in 1992 to Aleksandr P. Norden (1904–1993), Kazan State University, for development of the normalization method (called

Norden’s method of normalization) in the theory of surfaces in projective spaces, for applications of this method to the theory of non-Euclidean spaces, and for the development and popularization of Lobachevskii’s ideas. Three honorary diplomas were also awarded.

In 1997 ten scientists were nominated for the Lobachevskii Medal. On the advice of an international jury, the Council of the Kazan State University awarded two Lobachevskii Medals. The medalists were Mikhael Gromov, Institut des Hautes Études Scientifiques, Paris; and Boris P. Komrakov, International Sophus Lie Center, Minsk. Gromov was honored for a series of papers (1967–1996) in geometry and topology which were devoted to the theory of hyperbolic groups and to the development of the theory of embeddings for various classes of spaces. Komrakov was honored for contributions to the theory of Lie groups and homogeneous spaces presented in the monographs *Structures on Manifolds and Homogeneous Spaces* and *Primitive Actions and the Sophus Lie Problem*. Three nominees received honorary diplomas.

For the competition for the 2002 Lobachevskii Medal, four scientists were nominated. On the advice of an international jury, the Council of Kazan State University awarded the Lobachevskii Medal to Shiing-Shen Chern for his fundamental contributions to differential geometry, integral geometry, web geometry, complex analysis, and characteristic classes. IDZHAD KH. SABITOV, Moscow State University, was awarded an honorary diploma for a series of papers on metric geometry in the large and polyhedra solving.

—Boris Shapukov, Kazan State University

Develin Awarded AIM Five-Year Fellowship

The American Institute of Mathematics (AIM) has awarded its Five-Year Fellowship for 2003 to MIKE DEVELIN, of the University of California, Berkeley. He is currently studying discrete geometry and combinatorics under the supervision of Bernd Sturmfels.

The AIM five-year fellowships are awarded each year to outstanding new Ph.D. students in an area of pure

mathematics. The fellowships cover sixty months of full-time research, as well as funds for travel and equipment. Each fellowship carries a stipend of \$4,000 per month, with an additional \$4,000 per year allocated for travel and equipment.

—From an AIM announcement

Chudnovsky and Lindenstrauss Awarded CMI Long-Term Prize Fellowships

The Clay Mathematics Institute (CMI) has announced its selection of two long-term prize fellows for 2003. They are MARIA CHUDNOVSKY, of Princeton University, and ELON LINDENSTRAUSS, of Stanford University. Chudnovsky “has made significant contributions to the field of combinatorics and graph theory,” including helping to solve the Strong Perfect Graph Conjecture, “one of the best known open problems in combinatorics.” She is working on a related problem for her Ph.D. dissertation. Lindenstrauss was chosen “for his novel work in ergodic theory and dynamical systems,” most notably “his research on the problem of arithmetic quantum unique ergodicity, which is a problem at the interface between the theory of automorphic forms and mathematical physics.”

The prize fellowships are awarded to mathematicians who are thirty years old or younger and who have contributed profound ideas and major achievements to the discipline of mathematics. The long-term prize fellows are employed by CMI for terms ranging from one to five years and are paid a salary to conduct research at institutions of their choice. Additional research funding can be requested.

The Clay Mathematics Institute is a private, nonprofit foundation dedicated to increasing and disseminating mathematical knowledge. It sponsors a series of programs that includes creating new mathematical knowledge, disseminating mathematical insights, inspiring talented students, and recognizing extraordinary mathematical achievement and solutions of specific mathematical problems.

—From a CMI announcement

Klein Awarded Leibniz Prize

RUPERT KLEIN, of the Free University of Berlin and the Potsdam Institute for Climate Impact Research, has been awarded the Gottfried Wilhelm Leibniz Prize for 2003 by the Deutsche Forschungsgemeinschaft (DFG). Klein works in both mathematics and climate research. The DFG prize consists of 1.55 million euros (about US\$1.7 million) to support research over a period of five years.

Klein studied theoretical engineering at RWTH Aachen, from which he received a Ph.D. in 1988. He did postdoctoral work at Princeton University and held a University Professorship at Bergische Universität before joining the

Free University and the Potsdam Institute. His current research interests are in integrating applied mathematics and computer sciences with climate impact research and in the mathematical modeling of multiscale interactions in natural and social systems. His goal is to further develop both mathematical concepts and concepts relating to the natural and social sciences and thus to solidify interdisciplinary research.

The aim of the Leibniz Prize Program, which was instituted by the DFG in 1985, is to improve the working conditions of outstanding scientists and scholars, to broaden their opportunities for research, to relieve them of administrative burdens, and to allow them to hire especially highly qualified young academics. The prizewinners are permitted the greatest possible freedom in the way they use the prize funds. The DFG is the main scientific research funding agency of the German government.

—From a Potsdam Institute announcement

AWM Essay Contest Winners Announced

The Association for Women in Mathematics (AWM) has announced the winners of its 2002 essay contest, “Biographies of Contemporary Women in Mathematics”. The grand prize winner was ALYSSA CHASE, of Townsend Harris High School in Flushing, New York, for her essay “Peggy Tang Strait: A Pioneer in Uncharted Territory”. Chase’s essay will be published in the AWM newsletter. The first-place winner in the graduate school category was JEFFREY B. FARR, of Clemson University, for an essay on Renu Laskar. ALICIA RICHARDSON, of Morgan State University, won first prize in the college division for an essay on Fern Hunt. The winner in the middle school category was ROSS CATON, of Jack Jouett Middle School, Charlottesville, Virginia, who wrote an essay on Lois Williams. A complete list of the winners, as well as copies of their essays, can be found on the AWM website at <http://www.awm-math.org/biographies/contest/2002.html>.

—From an AWM announcement