Mathematics People

Prizes of the International Congress of Chinese Mathematicians

A number of mathematical prizes were awarded at the International Congress of Chinese Mathematicians (ICCM), held in Taiwan in December 2001.

Six mathematicians were awarded Morningside Medals of Mathematics. Gold medals went to JUN LI, Stanford University, for his contributions to the study of moduli spaces of vector bundles and to the theory of stable maps and invariants of Calabi-Yau manifolds; and to HORNG-TZER YAU, New York University, for his contributions to the field of mathematical physics. Silver medals were awarded to DAQUING WAN, University of California, Irvine, for his proof of Dwork's conjecture of L-functions over finite fields; to CHIN-LUNG WANG, National Tsing Hua University, for his contributions on the birational model of algebraic varieties with singularities; to SIJUE WU, University of Maryland, for her establishment of local well-posedness of the water wave problems in a Sobolev class in arbitrary space dimensions; and to NANHUA XI, Chinese Academy of Sciences, for his work on solving an important conjecture of Lusztig.

The Morningside Medals were established in 1998 with funding donated by the Morningside Group of Hong Kong. These awards are given to outstanding mathematicians of Chinese descent to encourage them in pursuit of mathematical research. Two gold and four silver medals are awarded every three years. The gold medals carry a cash prize of US$20,000 and the silver medals a cash prize of US$5,000.

In addition to the Morningside Medals of Mathematics, the Morningside Lifetime Achievement Award was given to SHIING-SHEN CHERN for his work on developing the foundations of mathematics in Chinese society, his influential contributions to differential geometry, and his nurturing of leading mathematicians in and outside China. Chern received his B.S. from Nankai University in 1930, his M.S. from Tsing Hua University in 1934, and his Ph.D. from the University of Hamburg in 1936. He has been a member of the Institute for Advanced Study at Princeton University and acting director of the Institute of Mathematics at Academia Sinica in Nanjing. He has also taught at the University of Chicago and at the University of California, Berkeley. He was founder of the Mathematical Sciences Research Institute at Berkeley and served as its director from 1981 to 1984. He was also the founder and director of the Nankai Institute of Mathematics in Tianjin. Chern was awarded the U.S. National Medal of Science in 1975 and the Wolf Prize in 1983. In 1985, he was elected a fellow of the Royal Society of London and became an honorary member of the London Mathematical Society in 1986. He was also elected to both the National Academy of Sciences and the National Academy of Arts and Sciences.

The Chern Prize in Mathematics was established in 2001 in Chern's honor, and the first recipient of the prize is JIU-KANG YU of the University of Maryland. Yu was honored "for his important contributions to number theory, algebraic geometry, and representation theory," in particular his constructions of supercuspidal representations of p-adic groups, and his contributions to the theory of Bruhat-Tits buildings. In addition, the Chern Prize for Public Service was awarded to SONG-SUN LIN of the National Chiao-Tung University, Taiwan, "for his distinguished contributions to the development of nonlinear partial differential equations and dynamical systems in Taiwan." The Chern awards, which carry a cash prize of US$2,000, will be presented every three years to young mathematicians of Chinese descent who have made distinguished contributions either to mathematics research or to public service activities in support of mathematics.

—Chang-Shou Lin,
National Center for Theoretical Sciences, Taiwan,
and
—Shing-Tung Yau,
Harvard University

Kreiss Wins National Academy of Sciences Award

The 2002 National Academy of Sciences (NAS) Award in Applied Mathematics and Numerical Analysis has been given to HEINZ-OTTO KREISS of the University of California, Berkeley. Kreiss, who received both the Licentiate in mathematics and the doctor of technology degree from the Royal Institute of Technology, Stockholm, in 1960,

was chosen "for his seminal contribution to the understanding of differential and difference equations and for his many outstanding contributions to numerical analysis, fluid dynamics, and meteorology."

The Award in Applied Mathematics and Numerical Analysis carries a cash prize of $10,000 and is awarded approximately every three years for outstanding work in applied mathematics and numerical analysis.

—From an NAS announcement

Calegari Selected as AIM Five-Year Fellow

The American Institute of Mathematics (AIM) has awarded the 2002 AIM Five-Year Fellowship to FRANK CALEGARI of the University of California, Berkeley.

Calegari received a B.S. with honors in mathematics from the University of Melbourne in 1997. He will complete his dissertation "Aspects of semistable abelian varieties" in 2002 under the direction of Kenneth Ribet. Calegari's research interests include number theory, modular forms, Galois representations, group schemes, and Diophantine equations. His research focuses on the interplay between Galois representations and their deformations.

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

2002 Leibniz Prizes Awarded

The Deutsche Forschungsgemeinschaft (DFG) has selected twelve recipients of the Gottfried Wilhelm Leibniz Prize for 2002. Two of the awardees are mathematical scientists. WOLFGANG DAHMEN of Rheinisch-Westfälische Technische Hochschule (RWTH) Aachen and BRUNO ECKHARDT of Marburg University will receive DM 1.5 million (approximately US$750,000) to support research over a period of five years.

Wolfgang Dahmen, age fifty-two, studied mathematics and physics at RWTH Aachen, from which he received his doctorate in 1976. He did postdoctoral work at IBM and has held positions at Bielefeld University and the Free University of Berlin. He is currently professor of geometry and practical mathematics at RWTH Aachen. His research interests include issues concerning online and real-time optimization that are important in monitoring and controlling processes in sensitive equipment such as chemical reactors in order to prevent disasters. His elaboration of the mathematical theory of wavelets provides the basis for these methods.

Bruno Eckhardt, age forty-one, studied physics, mathematics, and computer science at Kaiserslautern and Atlanta before completing his Ph.D. at the University of Bremen in 1986. He has taught at the University of Oldenburg and has been professor of theoretical physics at Marburg University since 1996. Eckhardt's field of research is nonlinear dynamics, particularly in macroscopic systems such as turbulence in currents. He has developed numerical methods of simulating flow patterns. His research on the dynamics of nonlinear systems has opened up new avenues in the physics of fluid dynamics.

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 DFG announcement

AWM Essay Contest Winners Announced

The Association for Women in Mathematics (AWM) has announced the winners of its 2001 essay contest "Biographies of Contemporary Women in Mathematics". The grand prize winner was ALEXANDRA MCKINNEY of Londonderry Middle School, Londonderry, New Hampshire, for her essay "Women in Mathematical Sciences: To Infinity and Beyond! A Biographical Essay on Dr. Toni Galvin". McKinney's essay will be published in the AWM Newsletter. The first-place winner in the graduate school category was SUSAN D'AGOSTINO of Dartmouth College for an essay on Vera Pless. CHARLES MOFFIT of the United States Military Academy at West Point won first place in the college division for his essay on Tasha Inniss. The first-place high-school winner was SANA AHMED of Townsend Harris High School, Flushing, New York, who wrote on mathematician Misha E. Kilmer. A complete list of the winners, as well as copies of their essays, can be found on the AWM website `http://www.awm-math.org/biographies/contest/2001.html`.

—From an AWM announcement

Correction

The March 2002 issue of the *Notices*, page 337, carried an announcement about awards of the Humboldt Foundation. Because of incorrect information provided by the foundation, there were errors in the description of the research of the winner of the Sofya Kovalevskaya Prize, Matilde Marcolli of the Max-Planck-Institut für Mathematik in Bonn. Marcolli's research focuses on gauge theory, noncommutative geometry, and arithmetic geometry. Her recent work includes Floer homology, the fractional quantum Hall effect, the holographic AdS/CFT correspondence, and noncommutative geometry of modular curves.