Mathematics People

Howson Receives Adams Prize

The University of Cambridge has announced the winner of one of its most prestigious prizes. The Adams Prize is awarded each year by the Faculty of Mathematics and St. John's College to a young researcher based in the United Kingdom who is doing first-class international research in the mathematical sciences.

The topic for 2002 is number theory, and the winner is SUSAN HOWSON, who currently holds a Royal Society Dorothy Hodgkin Research Fellowship in conjunction with a lectureship at the University of Nottingham. Howson previously held a Moore Instructorship at the Massachusetts Institute of Technology and a European Union Training and Mobility of Researchers postdoctoral position at the Université de Paris 13.

Howson has done research of great promise on the study of the arithmetic of elliptic curves via the p-adic methods of Iwasawa theory. Her work involves novel techniques from noncommutative algebra, combined with number-theoretic arguments.

The Adams Prize is named after the mathematician John Couch Adams and was endowed by members of St. John's College. It is currently worth 12,000 pounds (about US$17,500), of which one-third is awarded to the prizewinner on announcement of the prize, one-third is provided to the prizewinner's institution (for research expenses of the prizewinner), and one-third is awarded to the prizewinner on acceptance for publication in an internationally recognized journal of a substantial (normally at least 25 printed pages) original survey article of which the prizewinner is an author.

The prize commemorates Adams's discovery of the planet Neptune, through calculation of the discrepancies in the orbit of Uranus.

—From University of Cambridge announcements

Mandelbrot Receives Procter Prize

BENOIT MANDELBROT has been awarded the 2002 William Procter Prize for Scientific Achievement from Sigma Xi. He will receive a cash award of $5,000 and will present the Procter Prize Lecture at Sigma Xi's meeting in November 2002.

Mandelbrot's 1967 article in *Science*, "How long is the coast of Britain?", is generally considered a milestone in science and mathematics, and its impact has been felt in many other fields. He coined the word "fractal" in the mid-1970s to describe objects, shapes, or behaviors that have similar properties at all levels of magnification. The concept has found applications in such diverse fields as physics, economics, the earth sciences, and linguistics.

Mandelbrot is Sterling Professor of Mathematical Sciences at Yale University and Fellow Emeritus in Physics at the IBM T. J. Watson Research Center. His other honors include the Wolf Prize in physics and election to the National Academy of Sciences.

—From a Sigma Xi announcement

Chern Receives Blaschke Medal

In April 2001 S. S. CHERN received the Wilhelm Blaschke Medal from the Wilhelm Blaschke Foundation. The medal, which is accompanied by a cash prize of 1,000 euros (about US$900), is awarded at irregular intervals for outstanding achievements in areas of geometry related to Blaschke's work.

Chern is an emeritus professor at the University of California, Berkeley, and founder and honorary director of the Nankai Institute of Mathematics at Nankai University in

Tianjin, China. As a student of Blaschke, Chern received his doctorate at the Universität Hamburg in 1936.

Previous recipients of the Blaschke Medal are K. Nomizu of Brown University and K. Leichtweiss of the Universität Stuttgart.

—*Allyn Jackson*

National Academy of Sciences Elections

The National Academy of Sciences has announced the election of seventy-two new members and fifteen foreign associates. The following mathematical scientists are among the newly elected members: DAVID W. McLAUGHLIN, Courant Institute of Mathematical Sciences, New York University; PETER SARNAK, Princeton University, Institute for Advanced Study, and Courant Institute of Mathematical Sciences, New York University; PETER W. SHOR, AT&T Research Laboratories, Florham Park, New Jersey; and YUM-TONG SIU, Harvard University. DAVID P. RUELLE, Institut des Hautes Études Scientifiques, was elected as a foreign member.

—*From an NAS announcement*

American Academy of Arts and Sciences Elections

Six mathematicians have been elected to membership in the American Academy of Arts and Sciences in 2002. They are: ROBERT L. BRYANT, Duke University; RICHARD T. DURRETT, Cornell University; JOSEPH D. HARRIS, Harvard University; MICHAEL J. HOPKINS, Massachusetts Institute of Technology; CARLOS E. KENIG, University of Chicago; and PETER McCULLAGH, University of Chicago.

The American Academy of Arts and Sciences was founded in 1780 to foster the development of knowledge as a means of promoting the public interest and social progress. The membership of the academy is elected and represents distinction and achievement in a range of intellectual disciplines—mathematical and physical sciences, biological sciences, social arts and sciences, and humanities and fine arts.

—*From an American Academy announcement*

Devaney Wins NSF Director's Award

ROBERT L. DEVANEY of Boston University is one of six educators honored with the second annual National Science Foundation's (NSF) Director's Awards for Distinguished Teaching Scholars. The award consists of $300,000 over the next four years. The awards recognize outstanding contributions to research and imaginative teaching applications.

—*From an NSF announcement*

Putnam Prizes Awarded

The winners of the 62nd William Lowell Putnam Competition have been announced. The Putnam Competition is administered by the Mathematical Association of America and consists of an examination containing mathematical problems that are designed to test both originality and technical competence. Prizes are awarded to both individuals and teams.

The five highest ranking individuals, listed in alphabetical order, were REID W. BARTON, Massachusetts Institute of Technology; GABRIEL D. CARROLL, Harvard University; KEVIN D. LACKER, Duke University; GEORGE LEE JR., Harvard University; and JAN K. SIWANOWICZ, City College, City University of New York.

Institutions with at least three registered participants obtain a team ranking in the competition based on the rankings of three designated individual participants. The five top-ranked teams (with team members listed in alphabetical order) were: Harvard University (Gabriel D. Carroll, George Lee Jr., Alexander B. Schwartz); Massachusetts Institute of Technology (Reid W. Barton, Abhinav Kumar, Pavlo Pylyavskyy); Duke University (David G. Arthur, Nathan G. Curtis, Kevin D. Lacker); University of California, Berkeley (Maksim I. Maydanskiy, James M. Merryfield, Austin W. Shapiro); and Stanford University (Kenneth K. Easwaran, Paul A. Valiant, David T. Vickrey).

The top five individuals in the competition received cash awards of $2,500; the next ten received $1,000. The first-place team was awarded $25,000, with each team member receiving $1,000. The team awards for second place were $20,000 and $800; for third place, $15,000 and $600; for fourth place, $10,000 and $400; and for fifth place, $5,000 and $200.

The Elizabeth Lowell Putnam Prize is awarded periodically to a woman whose participation in the Putnam Competition is deemed particularly meritorious. In the recent competition this prize went to MELANIE E. WOOD of Duke University. The prize carries a cash award of $1,000.

—*Elaine Kehoe*

USA Mathematical Olympiad

The thirty-first annual USA Mathematical Olympiad (USAMO) was held May 2–5, 2002, in Cambridge, Massachusetts. The students participating in the Olympiad were selected on the basis of their performances on the American High School and American Invitational Mathematics Examinations, which involved hundreds of thousands of students.

The twelve highest scorers in the USAMO, listed in alphabetical order, were: STEVE BYRNES of West Roxbury,

Massachusetts; MICHAEL HAMBURG of South Bend, Indiana; NEIL HERRIOT of Palo Alto, California; DANIEL KANE of Madison, Wisconsin; ANDERS KASEORG of Charlotte, North Carolina; RICKY LIU of Newton Centre, Massachusetts; TIANKAI LIU of Exeter, New Hampshire; PO-RU LOH of Madison, Wisconsin; ALISON MILLER of Niskayuna, New York; GREGORY PRICE of Alexandria, Virginia; TONG-KE XUE of Chandler, Arizona; and INNA ZAKHAREVICH of Palo Alto, California.

Daniel Kane, Ricky Liu, Tiankai Liu, Po-Ru Loh, and Inna Zakharevich all received perfect scores. Michael Hamburg was designated by the Clay Mathematics Institute (CMI) as the 2002 CMI Mathematics Olympiad Scholar for giving an especially elegant solution to one of the problems.

The twelve USAMO winners were honored in Washington, DC, on June 23–24, 2002, at ceremonies sponsored by the Mathematical Association of America. After attending the Mathematical Olympiad Summer Program at the University of Nebraska in Lincoln, Nebraska, six of the twelve students will be selected as the United States team to compete in the International Mathematical Olympiad (IMO) to be held July 19–30 in Glasgow, Scotland.

—*Elaine Kehoe*

National High School Student Calculus Competition

JENNIFER BALAKRISHNAN of Harvest Christian Academy in Barrigada, Guam, has been awarded the second National High School Calculus Student Award. The award carries a cash prize of $1,000 and is given by calculus.org, based at the University of California, Davis; Williams College; and Wake Forest University. The prize was awarded to Balakrishnan at the 2002 USA Mathematical Olympiad in Cambridge, Massachusetts.

—*From* www.calculus.org