

Mathematics People

Heinrich Receives Prize for Achievement in Information-Based Complexity

STEFAN HEINRICH of the Universität Kaiserslautern is the fourth winner of the Prize for Information-Based Complexity. He was cited for "numerous outstanding contributions to information-based complexity."

The prize committee consisted of Erich Novak, University of Jena; Sergei Pereverzev, Ukrainian Academy of Science; Joseph F. Traub, Columbia University; G. W. Wasilkowski, University of Kentucky; and Henryk Wozniakowski, Columbia University and University of Warsaw. The award will be presented at the Foundations of Computational Mathematics Meeting in Minneapolis in August 2002.

The Prize for Achievement in Information-Based Complexity carries an award of \$3,000 and a plaque.

—Joseph F. Traub, Columbia University

Kawahigashi Receives MSJ Spring Prize

The 2002 Spring Prize of the Mathematical Society of Japan (MSJ) has been awarded to YASUYUKI KAWAHIGASHI of Tokyo University for his distinguished contributions to the study of operator algebras.

The Spring Prize is awarded each year to a mathematician under forty years old who has made an outstanding contribution to mathematics. Kawahigashi was born in Tokyo in 1962. He received his B.Sc. degree in 1985 from Tokyo University and his Ph.D. in 1989 from the University of California, Los Angeles. He also received a Doctor of Science degree in 1990 from Tokyo University.

Kawahigashi's main research interests are in operator algebras, in particular in subfactor theory. His main contribution is the introduction of a new method called the orbifold construction for subfactors. This method constructs the subfactors that correspond to Coxeter graphs of type D and gives a part of the complete classification of subfactors with index less than four, for example.

As with the introduction of the Jones polynomials for knots, the study of factors deepens the relationship between topology and mathematical physics. By combining analytical and combinatorial methods, Kawahigashi obtains

relations between subfactors, topological field theory, and topological invariants for 3-dimensional manifolds. Recently, he has been interested in the relationship between conformal field theory and subfactor theory and has introduced a new setting for algebraic quantum field theory and clarified the meaning of the modular invariant partition functions from the subfactor viewpoint.

—From an MSJ announcement

Biss and Rodnianski Awarded CMI Long-Term Prize Fellowships

The Clay Mathematics Institute (CMI) has announced its selection of two long-term prize fellows for 2002. They are DANIEL K. BISS of the Massachusetts Institute of Technology and IGOR RODNIANSKI of Princeton University.

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. Areas of research in which current fellows are involved range from the theory of numbers to error correction in quantum computation.

The CMI is a private, nonprofit foundation dedicated to increasing and disseminating mathematical knowledge. It sponsors a series of programs that include 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

Packard Fellowships Awarded

The David and Lucile Packard Foundation has awarded 24 Fellowships for Science and Engineering for the year 2001. Two mathematical scientists were among the awardees.

ANDREI OKOUNKOV of the University of California, Berkeley, and CHRISTOPHER M. SKINNER of the University of Michigan will each receive a fellowship of \$625,000 over five years.

The fellowships are awarded to researchers in mathematics, natural sciences, computer science, and engineering who are in the first three years of a faculty appointment.

—From a Packard Foundation announcement

Royal Society of London Elections

Five mathematical scientists are among those elected as new fellows of the Royal Society of London for 2002: TERENCE J. LYONS, University of Oxford; ERIC R. PRIEST, University of St. Andrews; SUSAN M. REES, University of Liverpool; MILES A. REID, University of Warwick; and PETER SARNAK, Princeton University and Courant Institute of Mathematical Sciences, New York University.

—From a Royal Society announcement

AMS Menger Prizes at the 2002 ISEF

The 2002 Intel-International Science and Engineering Fair (ISEF) was held May 12–18, 2002, in Louisville, Kentucky. This year marked the 53rd anniversary of the ISEF. More than 1,000 ninth- through twelfth-graders competed in the fair. The participants had qualified by winning competitions in local, regional, and state fairs in the United States or national science fairs abroad. In addition to the general awards of the ISEF, more than fifty organizations, including the AMS, participated by giving ISEF Special Awards. The prizes included cash prizes, scholarships, T-shirts, magazines, and books.

This was the fifteenth year of participation in the ISEF by the AMS and the thirteenth year of presentation of the Karl Menger Memorial Prizes. The AMS Menger Prize committee served as the Special Awards Panel of Judges for the AMS; the members were Elwyn Berlekemp, University of California at Berkeley; Gisele Goldstein, University of Memphis (chair); and Julian Palmore, University of Illinois at Urbana-Champaign. The panel reviewed more than fifty projects, all in mathematics, and each student discussed his/her project individually with a panel member. Finalists for the prizes were interviewed additionally by the other panel members. The AMS gave one first-place award, two second-place awards, four third-place awards, and five honorable mention awards. The first-, second-, and third-place winners receive cash awards. All winners receive a personalized certificate, a copy of *What's Happening in the Mathematical Sciences?*, a short biography of Karl Menger, and an AMS briefcase.

The Karl Menger Memorial Prize winners were as follows:



Karl Menger Memorial Prize winners: (back row, left to right) Liang Chen, Jacob Licht, Boris Figovsky, Matthew Tesch; (middle row, left to right) Jonathan Zweig, Ronli Diakow, Amanda Shaw, Mary Brazelton, Nikita Rozenblyum; (front row, left to right) Gisele Goldstein (chair of Judges Panel), Andrew Korth, Chun-Chen Yeh, Ashum Karahanovich Kaibhanov.

First Place Award (\$1,000): "Rainbow Ramsey Theory: Rainbow Arithmetic Progressions and Anti-Ramsey Results", JACOB LIGHT, 17, William Hall High School, West Hartford, Connecticut.

Second Place Awards (\$500): "Is It a Knot or Not? A Study of Knot Theory", MATTHEW AARON TESCH, 16, Northwest High School, Justin, Texas; "Period Doubling Route to Chaos in Driven Bouncing Ball Simulation", ANDREW MICHAEL KORTH, 16, Morris Area High School, Morris, Minnesota.

Third Place Awards (\$250): "Winning Strategies for Games Played with Chips", CHUN-CHEN YEH, 16, Taipei Municipal First Girls' Senior High School, Chinese Taipei; "Circle Packing", LIANG CHEN, 18, El Cerrito High School, El Cerrito, California; "New Proof of Transcendence of Mahler's Number", ASHUM KARAHANOVICH KAIBHANOV, 15, Specialized School-Scientifical Center, Moscow, Russia; "Winter Wonderland: A Mathematical Analysis of Snowflakes", AMANDA BRYCE SHAW, 16, Seton School, Manassas, Virginia.

Honorable Mention Awards: "Odd Oscillations", MARY AUGUSTA BRAZELTON, 16, Bishop McNamara High School, Forestville, Maryland; "Nullhomotopic Knots in Real Projective Space", NIKITA ROZENBLYUM, 18, Stuyvesant High School, New York, New York; "Game Theory Models for Middle East Policy", JONATHAN CHARLES ZWIG, 17, Caddo Parish Magnet High School, Shreveport, Louisiana; "Crystallographic Restriction Theorem in the Euclidean Plane", BORIS O. FIGOVSKY, 18, Leo-Beck, Haifa, Israel; "Investigating the Distance Function on Centrally Symmetric Convex Surfaces", RONLI PHYLLIS DIAKOW, 18, Paul D. Schreiber Senior High School, Port Washington, New York.

The Society's participation in the Intel-ISEF is supported in part by income from the Karl Menger Fund, which was established by the family of the late Karl Menger. For more information about this program or to make contributions to the fund, contact the AMS Development Office, 201 Charles Street, Providence, RI 02904; send e-mail to development@ams.org; or telephone 401-455-4111.

—Gisele Goldstein, University of Memphis