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# Mathematics People

## Packard Fellowships Awarded

The David and Lucile Packard Foundation has awarded twenty Fellowships for Science and Engineering for the year 2002. Among the new fellows are two with links to the mathematical sciences. RONALD P. FEDKIW of Stanford University and RAJESH P. RAO of the University of Washington, both of whom work in computer science, 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*

## Werschulz Receives Prize for Achievement in Information-Based Complexity

ARTHUR G. WERSCHULZ of Fordham University is the fifth winner of the Prize for Information-Based Complexity.

The prize committee consisted of Stefan Heinrich, University of Kaiserslautern; 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 Prize for Achievement in Information-Based Complexity consists of \$3,000 and a plaque. The award will be presented at the Conference on Modern Computational Methods in Applied Mathematics in Bedlewo, Poland, in June 2004.

—*Joseph F. Traub, Columbia University*

## Royal Society of London Elections

Six mathematical scientists are among those elected as new fellows of the Royal Society of London for 2003. They are ELEANOR DODSON, University of York; ROGER FLETCHER, University of Dundee; PETER GREEN, University of Bristol; JOHN PAPALOIZOU, University of London; and LEON SIMON, Stanford University. DONALD KNUTH, Stanford University, was elected as a foreign member.

—*From a Royal Society announcement*

## AMS Menger Prizes at the 2003 ISEF

The 2003 Intel-International Science and Engineering Fair (ISEF) was held May 11–17 in Cleveland, Ohio. This year marked the fifty-fourth anniversary of the ISEF. More than 1,200 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. These prizes include cash prizes, scholarships, T-shirts, magazines, and books.

This was the sixteenth year of participation in ISEF by the AMS and the fourteenth year of presentation of the Karl Menger Memorial Awards. The AMS Menger Prize Committee served as the Special Awards Panel of Judges for the AMS; the members were Elwyn Berlekamp, University of California at Berkeley; Hugh Montgomery, University of Michigan, Ann Arbor; and Julian Palmore, University of Illinois at Urbana-Champaign (chair). The panel of judges reviewed more than fifty individual and team projects, all in mathematics. Finalists were interviewed by the panel.



**AMS Menger Prize winners. Third row, left to right: Alexey Baran, Artem Viktorov, Evgeny Amosov, Robert Bracco, Brian Rice, Jeremy Warshauer, Alan Taylor. Second row (l. to r.): Hyeyoun Chung, Anatoly Preygel, Lester Mackey, Sergey Ivanov, Evgeniy Loharu, Hannah Chung. Front row (l. to r.): Julian Palmore, Raymund To, Andrew Leifer, Alexandr Medvedev, and Ethan Street. David Pothier is not in the photo.**

The AMS gave one first-place award, two second-place awards, four third-place awards, and five honorable-mention awards.

The Karl Menger Memorial Prize winners were as follows:

First Place Award (\$1,000): “Fractals, Power-Law and the Weibull Distribution: Mathematically Modeling Crumpled Paper”, ANDREW M. LEIFER, RAYMOND CHUN HUNG TO, and DAVID G. POTHIER, Fairview High School, Boulder, Colorado.

Second Place Awards (\$500): “Polynomial Maps from  $Z_n$  to  $Z_n$ ”, ALEXANDR V. MEDVEDEV, BSU Liceum, Minsk, Belarus; “Continued Fractions of Quadratic Laurent Series”, ETHAN J. STREET, Winston Churchill High School, Livonia, Michigan.

Third Place Awards (\$250): “Game Theory in Action: Proving and Computing Winning Strategies for ‘Nim’ and Its Variants”, HYEYOUN CHUNG, Saint Paul’s Girl’s School, London, United Kingdom; “Computation of Quandle Cocycle Knot Invariants”, ANATOLY PREYGEL, Montgomery Blair High School, Silver Spring, Maryland; “A Combinatorial Proof of Seymour’s Conjecture for Regular Oriented Graphs with Almost Regular Outsets  $O'a$  and  $O''a$ ”, LESTER W. MACKKEY, Half Hollow Hills High School West, Dix Hills, New York; and “Multifractal Dimension Functions on  $R^n$  and  $Q_p$  Subsets”, EVGENIY E. LOHARU and SERGEY O. IVANOV, St. Petersburg, Russia.

Honorable Mention Awards: “Mathematics Is Not Yet Ready for Such Problems: Collatz Conjecture Rationalized”, ROBERT S. BRACCO, Dupont Manual Magnet High School, Louisville, Kentucky; “Random Walks and Handshakes”, BRIAN T. RICE, Southwest Virginia Governor’s School, Dublin, Virginia; “On Decompositions of Continuous and Differentiable Functions on Planar Sets”, ALEXEY V. BARAN, AES Centre of MSU, Moscow, Russia; “Generalization of the Kuratovsky’s Problem”, EVGENY A. AMOSOV and ARTEM G. VIKTOROV, Continuous Math Education Center, St. Petersburg,

Russia; and “New Bounds for the Diameters of  $k$ -Path Graphs”, JEREMY T. WARSHAUER, ALAN C. TAYLOR, and HANNAH CHUNG, Lyndon B. Johnson High School, Austin, Texas.

The AMS’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 02904-2294; send email to [development@ams.org](mailto:development@ams.org); or telephone 401-455-4111.

—Julian Palmore, University of Illinois at Urbana-Champaign

## National High School Calculus Student Award

LESTER W. MACKKEY, a senior at Half Hollow Hills High School West in Dix Hills, New York, has won the third annual National High School Calculus Student Award. He has twice received final averages of 100 in Advanced Placement calculus and a top grade of 5 on the AP exam. He has done research in graph theory at the Massachusetts Institute of Technology. He received an Intel Science Talent Search scholarship and a Karl Menger Memorial Prize in 2003. He is also a 2003 Presidential Scholar.

The \$1,000 prize is awarded by Calculus.org, based at the University of California at Davis, Williams College, and Wake Forest University.

—Elaine Kehoe