# Mathematics People

#### Tao Awarded 2000 Salem Prize

The 2000 Salem Prize has been awarded to Terence Tao, University of California, Los Angeles, for his work in  $L^p$  harmonic analysis and on related questions in geometric measure theory and partial differential equations.

The prize is awarded every year to a young mathematician judged to have done outstanding work in the field of interest of Raphaël Salem, primarily the theory of Fourier series.

The 2000 Salem Prize Committee consisted of J. Bourgain, C. Fefferman, P. Jones, N. Nikolski, T. Wolff, and J.-C. Yoccoz.

-J. Bourgain, Institute for Advanced Study

#### Ferran Sunyer i Balaguer Prize Awarded

The Institut d'Estudis Catalans has awarded the eighth Ferran Sunyer i Balaguer Prize to Juan-Pablo Ortega and Tudor Ratiu, both of the École Polytechnique Fédérale de Lausanne, for their monograph *Hamiltonian Singular Reduction*.

The amount of the prize is 10,000 euros (about US\$9,600). According to the terms of the prize the monograph will be published in the Birkhäuser series Progress in Mathematics. The Ferran Sunyer i Balaguer Prize is awarded each year to a mathematical monograph of an expository nature presenting the latest developments in an active area of mathematics research in which the author has made important contributions.

-From an Institut d'Estudis Catalans announcement

#### Clay Research Awards Presented

On May 24, 2000, the Clay Mathematics Institute (CMI) presented two Clay Research Awards. LAURENT LAFFORGUE of Université de Paris, Sud, was honored "for general work on

the Langlands program." ALAIN CONNES of the Collège de France and the Institut des Hautes Études Scientifiques was honored "for revolutionizing the field of operator algebras, for inventing modern noncommutative geometry, and for discovering that these ideas appear everywhere, including the foundations of theoretical physics." The presentation of the awards took place at the CMI's Millennium Meeting, held at the Collège de France in Paris.

-Allyn Jackson

### Packard Foundation Fellowships Awarded

Two mathematicians are among the twenty-four recipients of fellowships in science and engineering from the David and Lucile Packard Foundation. They are Ken Ono of Pennsylvania State University and Terence Tao of the University of California, Los Angeles. Each fellowship award totals \$625,000 for a period of 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

## ONR Awards Young Investigator Grants

Two researchers working in the mathematical sciences are among the twenty-six recipients of Young Investigator Program Awards by the Office of Naval Research (ONR). They are L. Mahadevan of the Massachusetts Institute of Technology and Naoki Saito of the University of California, Davis. The grants will provide the recipients' institutions with up to \$100,000 per year for three years.

The Young Investigator Program awards grants for basic research to faculty members at U.S. universities who have received their Ph.D.'s or equivalent degrees within the preceding five years.

-From an ONR announcement

## AMS Menger Awards at the International Science and Engineering Fair

The 2000 International Science and Engineering Fair (ISEF) was held May 7-13, 2000, in the Cobo Center in Detroit, Michigan. The 1,191 ninth- through twelfth-grade students in attendance earned the right to participate in this ISEF competition by their performance at local, regional, state, or, in the case of some foreign students, national science fairs. Prizes included plaques, certificates, T-shirts, books, magazine/journal subscriptions, organizational memberships, and cash awards. In addition to ISEF recognition there were special awards made by other groups, including professional and educational organizations, industry, branches of the military, and colleges and universities. In particular, millions of dollars of scholarship funds were awarded.

This was the thirteenth time the American Mathematical Society has presented the Karl Menger Memorial Awards at the ISEF. The AMS judging panel this year consisted of five mathematicians: Julian Palmore (University of Illinois at Urbana-Champaign), Giselle Goldstein (University of Memphis), Zhimin Zhang (Wayne State University), and Marius Nkashama and Peter O'Neil (chair) (University of Alabama at Birmingham). The panel considered sixty-six mathematics projects, as well as mathematics-related projects from engineering, computer science, and physics. One physics project received a second-place Menger prize, and one received honorable mention. Each panel member inspected each project, and each student was interviewed by at least two panel members. The winners (one firstplace winner, two second-place, and four third-place) were given cash prizes, and they and the three honorable men-



AMS Menger Award Winners. Left to right, back row: Peter V. O'Neil (chair of the judging panel), Jayce R. Getz, Zachary H. Cohn, Aadel A. Chaudhuri. Middle row: Ching T. Chen, Elaine P.-S. Gee, Vassily V. Starodubtsev, Ilya Malakhovsky, Siarhei Markouski. Front row: Craig A. Schroeder, Daniyar Z. Kamenov, Daniel R. Green.

tion winners were given copies of *What's Happening in the Mathematical Sciences* by Barry Cipra (published by the AMS) and a short biography of Karl Menger, in whose honor the awards are named.

The Karl Menger Memorial prize winners for this year were as follows:

First Place (\$1,000): JAYCE R. GETZ, Extension of a Theorem of Kiming and Olsson for p(n): Two-Year Study, Senior, Big Sky School, Missoula, Montana.

Second Place (\$500 each): AADEL AHMED CHAUDHURI, New Method for Computation of Wave Functions Using the Reverse Cantor Set-Based Rational Delta Function, Senior, West High School, Salt Lake City, Utah; ZACHARY HOWARD COHN, Reciprocity Laws Establishing the Quadratic Character of Remainder Classes in Fields, Senior, HalfHollow Hills High School East, Dix Hills, New York.

Third Place (\$250 each): CHING TANG CHEN, C-Transformation—Introduction of a New Geometric Transformation, Sophomore, Taipei Municipal Chien-Kuo Senior High School, Taipei, Taiwan; Elaine Pei-San Gee, Dynamics of CD4 T Cells in HIV-1 Patients under HAART-Implications in Immune System Restoration, Senior, Frederick High School, Frederick, Maryland; Siarhei Markouski and Ilya Malakhovsky, Method for Raising Real Numbers to a Rational Power and Its Computer Implementation, both Sophomores at School N41, Minsk, Belarus; Vassily Vladimirovich Starodubtsey, Elliptical Tangents, Senior, Clovis High School, Clovis, California.

Honorable Mention: Daniel Richard Green, Euclidean Solutions in Quantum Gravity, Senior, Handsworth Secondary School, North Vancouver, Canada; Daniyar Z. Kamenov, Solution of the Problem of Walter Janous, Senior, Lyceum School N20, Taldykorgan, Almatinskaya oblast, Kazakhstan; Craig Allan Schroeder, Random Circle on Target, Junior, Charlottesville High School, Charlottesville, Virginia.

It is apparent from the titles that the projects represented a remarkable breadth and scope, even when one discounts the fact that these are high school students. The panel was equally impressed with the enthusiasm and quality of the work done by these eleven winners and by many other young participants. The international flavor of the fair is also evident in our list of winners, which included two sophomores from Minsk in Belarus, a sophomore from Taipei, Taiwan, and seniors from Canada and Kazakhstan.

The Society's participation in ISEF is supported in part by income from the Karl Menger Fund, which was established by the family of the late Karl Menger.

-Peter O'Neil