Mathematics People

Butcher Receives Inaugural Jones Medal

JOHN BUTCHER of the University of Auckland, New Zealand, has received the inaugural Jones Medal for lifetime achievement in the mathematical sciences. The prize citation reads in part: "John Butcher is without doubt one of the leading world experts on numerical methods for the solution of ordinary differential equations (ODEs), and the world expert on Runge-Kutta methods, ... The entire subject today is organized around the concept of B-series, named after John, the expansion of the integrator as a power series in the time step, with coefficients that are polynomial in the Runge-Kutta coefficients and in the vector field appearing in the ODE and its derivatives: these appear in certain combinations known as elementary differentials of the vector field which are represented as rooted trees."

The Jones Medal is named for Vaughan Jones and was established by the Royal Society of New Zealand. It will be awarded biennially for lifetime achievement in pure or applied mathematics or statistics by a person with substantial connections to New Zealand.

—From a Royal Society of New Zealand announcement

Polterovich Awarded Coxeter-James Prize

IOSIF POLTEROVICH of the University of Montreal has been awarded the 2011 Coxeter-James Prize of the Canadian Mathematical Society (CMS). He was recognized for his work in spectral geometry, as well as his contributions to isospectral domains with mixed boundary conditions, the asymptotics of eigenvalues of the Laplacian, and isoperimetric inequalities for eigenvalues.

The prize was named after geometer Donald Coxeter and Ralph Duncan James, both former presidents of the CMS. It recognizes young mathematicians who have made outstanding contributions to mathematical research.

—From a CMS announcement

Scholze Awarded 2011 Clay Research Fellowship

PETER SCHOLZE of the University of Bonn has been awarded a five-year Clay Research Fellowship by the Clay Mathematics Institute (CMI). He received his M.Sc. at the University of Bonn in 2010 under the supervision of Michael Rapoport and is currently working on his Ph.D. thesis at Bonn. His major interest is arithmetic geometry, and he is working on the bad reduction of Shimura varieties and the Langlands program.

Clay Research Fellows are appointed for terms ranging from two to five years; graduating doctoral students and mathematicians within three years of receiving the doctoral degree are eligible for the fellowships. The primary selection criteria for the fellowship are the exceptional quality of the candidate’s research and the candidate’s promise to become a mathematical leader.

—From a CMI announcement

Mazzucato Awarded Michler Prize

ANNA MAZZUCATO of Pennsylvania State University has been awarded the 2011 Ruth I. Michler Memorial Prize by the Association of Women in Mathematics (AWM). She was honored for her “wide range of mathematical talents”. Her research involves the analysis of partial differential equations, particularly those arising from continuum mechanics of deformable solids and incompressible fluids, and associated inverse problems. In 1994 she earned her Laurea (B.S./M.S.) in mathematical physics at Universitá degli Studi di Milano. She received her Ph.D. in mathematics at the University of North Carolina, Chapel Hill, in 2000, where she studied the Navier-Stokes and other nonlinear evolution equations under the direction of Michael Taylor.

The Michler Prize grants a midcareer woman in academia a residential fellowship in the Cornell University mathematics department without teaching obligations.

—From an AWM announcement

Spohn Awarded Heineman Prize

HERBERT SPÖHNL of the Technical University of Munich has been awarded the 2011 Dannie Heineman Prize for Mathematical Physics. He was honored for his "seminal contributions to nonequilibrium statistical mechanics as exemplified by his exact solutions of growth models and stationary states of open systems. Combining mathematical rigor with physical insight, his work elucidates the transition from microscopic to macroscopic behavior.”
The prize carries a cash award of US$10,000 and is presented in recognition of outstanding publications in the field of mathematical physics. The prize was established in 1959 by the Heineman Foundation for Research, Educational, Charitable, and Scientific Purposes, Inc., and is administered jointly by the American Institute of Physics (AIP) and the American Physical Society (APS). The prize is presented annually.

—From an APS announcement

National Academy of Engineering Elections

The National Academy of Engineering (NAE) has elected sixty-eight new members and nine foreign associates. Among them are four whose work involves the mathematical sciences. They are: William J. Cook, Chandler Family Chair Professor in Industrial and Systems Engineering, Georgia Institute of Technology, Atlanta, “for theoretical and computational contributions to discrete optimization”; Daphne Koller, professor of computer science, Stanford University, “for contributions to representation, inference, and learning in probabilistic models with applications to robotics, vision, and biology”; Terrence J. Sejnowski, Francis Crick Professor and director of the Computational Neurobiology Laboratory, Salk Institute for Biological Studies, La Jolla, California, “for contributions to artificial and real neural network algorithms and applying signal processing models to neuroscience”; and Mihalis Yannakakis, Percy K. and Vida L. W. Hudson Professor of Computer Science, Columbia University, “for contributions to algorithms and computational complexity.”

—From an NAE announcement

Mathematics Opportunities

NSF Postdoctoral Research Fellowships

The National Science Foundation (NSF) awards Mathematical Sciences Postdoctoral Research Fellowships (MSPRF) for appropriate research in areas of the mathematical sciences, including applications to other disciplines. Awardees are permitted to choose research environments that will have maximal impact on their future scientific development. Awards are made in the form of either Research Fellowships or Research Instructorships. The Research Fellowship option provides full-time support for any eighteen academic-year months in a three-year period, in intervals not shorter than three consecutive months. The Research Instructorship option provides a combination of full-time and half-time support over a period of three academic years, usually one academic year full time and two academic years half time. Under both options, the award includes six summer months; however, no more than two summer months of support may be received in any calendar year. Under both options, the stipend support for twenty-four months (eighteen academic-year months plus six summer months) will be provided within a forty-eight-month period.


—From an NSF announcement

International Mathematics Competition for University Students

The Eighteenth International Mathematics Competition (IMC) for University Students will be held July 28 through August 3, 2011, at American University in Blagoevgrad, Bulgaria. Participating universities are invited to send several students and one teacher; individual students are welcome. Students completing their first, second, third, or fourth years of university education are eligible. The competition will consist of two sessions of five hours each. Problems will come from the fields of algebra, analysis (real and complex), geometry, and combinatorics. The working language will be English. See the website http://www.imc-math.org.uk/ or contact John Jayne, University College London, Gower Street, London WC1E 6BT, United Kingdom; telephone: +44-20-7679-7322; email: j.jayne@ucl.ac.uk.

—John Jayne
University College London