
Mathematics People

Szemerédi Awarded Schock Prize

ENDRE SZEMERÉDI of Rutgers University and the Alfréd Rényi Institute of Mathematics, Hungarian Academy of Sciences, has been awarded the Rolf Schock Prize in Mathematics by the Royal Swedish Academy of Sciences, the Royal Academy of Fine Arts, and the Royal Academy of Music. The prize carries a cash award of 500,000 Swedish kroner (approximately US\$80,000).

Szemerédi was honored “for his deep and pioneering work from 1975 on arithmetic progressions in subsets of the integers, which has led to great progress and discoveries in several branches of mathematics.”

The Rolf Schock Prizes are awarded triennially in the fields of logic and philosophy, mathematics, the visual arts, and musical arts. The prize amount is 500,000 kroner per category. The awards ceremony will take place on October 22, 2008, in Stockholm.

—*From a Royal Swedish Academy of Sciences announcement*

Maldacena, Polchinski, and Vafa Awarded Dirac Medal

JUAN MARTÍN MALDACENA of the Institute for Advanced Study, JOSEPH POLCHINSKI of the Kavli Institute for Theoretical Physics, University of California at Santa Barbara, and CUMRUN VAFA of Harvard University have been awarded the 2008 Dirac Medal by the Abdus Salam International Centre for Theoretical Physics (ICTP). According to the prize citation, they were honored for “their fundamental contributions to superstring theory. Their studies range from early work on orbifold compactifications, physics and mathematics of mirror symmetry, D-branes and black hole physics, as well as gauge theory-gravity correspondence.”

The ICTP awarded its first Dirac Medal in 1985. Given in honor of P. A. M. Dirac, the medal is awarded annually on Dirac’s birthday, August 8, to an individual or individuals who have made significant contributions to

theoretical physics and mathematics. The medalists also receive a prize of US\$5,000. An international committee of distinguished scientists selects the winners from a list of nominated candidates. The Dirac Medal is not awarded to Nobel laureates, Fields Medalists, or Wolf Foundation Prize winners.

—*From an ICTP announcement*

Rice Receives 2008 Jerome Sacks Award

JOHN RICE of the University of California Berkeley has been named the 2008 recipient of the Jerome Sacks Award for Cross-Disciplinary Research by the National Institute of Statistical Sciences (NISS). He was recognized “for his outstanding, diverse cross-disciplinary contributions to ion channel receptors, energy demand, transportation, astronomy, and functional data analysis.”

The NISS Board of Trustees established the Jerome Sacks Award for Cross-Disciplinary Research in 2000 to honor Sacks’s service as the founding director of NISS, a capacity in which he served from 1991 to 2000. The annual prize of US\$1,000 recognizes sustained, high-quality cross-disciplinary research involving the statistical sciences.

—*From an NISS announcement*

Prizes of the Canadian Mathematical Society

The Canadian Mathematical Society (CMS) has awarded several major prizes.

HARLEY WESTON of the University of Regina has been awarded the Adrien Pouliot Award for 2008. The award recognizes individuals or teams of individuals who have made significant and sustained contributions to mathematics education in Canada. According to the prize citation, Weston was honored for his “outstanding contributions to mathematics education at the local, regional, and

national levels,” having devoted his career to advancing mathematics and mathematics education in his home province of Saskatchewan, as well as Canada and the world in general. “Key among his contributions has been his creation of the Math Central website and his outreach to aboriginal communities.”

EDWARD BIERSTONE of the University of Toronto has been honored with the 2008 Excellence in Teaching Award for sustained and distinguished contributions in teaching at the postsecondary undergraduate level at a Canadian institution. According to the citation, “his colleagues describe as ‘extraordinary’ the influence he has on generations of students” and “praise his enthusiasm for teaching students at all levels in mathematics, engineering, and other programs.”

RONALD VAN LUIJK of Simon Fraser University has been awarded the G. de B. Robinson Award for 2007. The award recognizes the publication of excellent papers in the *Canadian Journal of Mathematics* and the *Canadian Mathematical Bulletin*. He was honored for his paper “A K_3 Surface Associated with Certain Integral Matrices Having Integral Eigenvalues”, which appeared in the *Canadian Mathematical Bulletin* 49 (2006).

—From a CMS announcement

Bursztyn and Crainic Receive Lichnerowicz Prize

In July 2008 the first André Lichnerowicz Prize was awarded to HENRIQUE BURSZTYN and MARIUS CRAINIC.

Henrique Bursztyn holds a Ph.D. in mathematics, which he completed in 2001 at the University of California at Berkeley under the direction of Alan Weinstein. After postdoctoral positions at the Mathematical Sciences Research Institute in Berkeley, the University of Toronto, and the Fields Institute, he was appointed associate researcher in the Arminio Fraga chair at the Instituto Nacional de Matematica Pura e Aplicada in Rio de Janeiro in 2005. His numerous publications range from the theory of deformation quantization to Morita equivalence in the categories of Poisson manifolds and symplectic groupoids. His work in Dirac geometry not only advanced the subject, it also was the source of inspiration for many further developments.

Marius Crainic completed his Ph.D. in mathematics in 2000 at the University of Utrecht under the direction of Ieke Moerdijk. Since then he has held prestigious research fellowships at the University of California at Berkeley and at the University of Utrecht, where he is presently teaching. His work is an important contribution to the theory of Lie groupoids with applications to noncommutative geometry, to foliation theory, Lie algebroid cohomology, momentum map theories, and questions of rigidity and stability in Poisson geometry. Together with Rui Loja Fernandes he solved the deep question of generalizing Sophus Lie’s third theorem from the setting of Lie groups to that of Lie groupoids, and he developed applications of this result to Poisson geometry.

The André Lichnerowicz Prize in Poisson geometry was established in 2008. It will be awarded for notable contributions to Poisson geometry every two years at the International Conference on Poisson Geometry in Mathematics and Physics, to researchers who completed their doctorates at most eight years before the year of the conference. The prize was named in memory of André Lichnerowicz (1915–1998), whose work was fundamental in establishing Poisson geometry as a branch of mathematics. The prize is awarded by a jury composed of the members of the scientific committee of the conference who may invite members of the organizing committee to participate in their deliberation and vote. In 2008 the prize amount was 500 euros (approximately US\$750) for each recipient. The funds have been provided by the host institution of the conference, the Centre Interfacultaire Bernoulli of the École Polytechnique Fédérale de Lausanne, Switzerland.

—Announcement of the Centre Interfacultaire Bernoulli

ONR Young Investigator Award

Six researchers whose work involves the mathematical sciences have been selected to receive Young Investigator Awards from the Office of Naval Research (ONR) in the 2008 ONR Young Investigators Program competition. Their names, affiliations, and the titles of their proposals follow.

JOEL A. TROPP, California Institute of Technology, “Compressive Signal Processing: Theory and Algorithms”; JUSTIN ROMBERG, Georgia Institute of Technology, “Compressive Sampling for Next-Generation Signal Acquisition”; CARLOS A. GUESTRIN, Carnegie Mellon University, “Novel Computational Paradigm for Integration of Uncertain Information in Adversarial Activity Recognition”; DAVID KEMPE, University of Southern California, “Game-Theoretic Views of Social Networks and Their Interactions”; ADRIAN LEW, Stanford University, “Computational Solid Mechanics in the Navy for the Era of Streaming Computing”; and LEIGH MCCUE, Virginia Polytechnic Institute and State University, “Tool Development at the Intersection of Nonlinear Dynamics and Computational Fluid Mechanics”.

The Young Investigator Program supports basic research by exceptional faculty at U.S. universities who have received Ph.D.’s or equivalent degrees within the preceding five years. Grants to their institutions provide up to US\$100,000 per year for three years. The funds may be applied to a variety of research costs, including salary, graduate student support, laboratory supplies, and operating costs. Young Investigators are selected on the basis of prior professional achievement, the submission of a meritorious research proposal, and evidence of strong support by their respective universities. The program supports outstanding research in a wide range of science and engineering fields that are critical to the evolution of a first-rate navy and Marine Corps.

—From an ONR announcement

MAA Awards for Mathematical Modeling

The Mathematical Association of America (MAA) holds a Mathematical Contest in Modeling (MCM), a competition designed to test students' abilities to solve realistic problems and work in a team setting. Two teams of students were honored in 2008. JASON CHEN, JOONHAHN CHO, and BRIAN CHOI of Duke University were honored for their work on Problem A, which involved modeling the effects of the melting of the north polar ice cap, specifically along the Florida coastline. MARTIN HUNT, CHRISTOPHER PONG, and GEORGE TUCKER of Harvey Mudd College were honored for their work on Problem B, which focused on creating an algorithm to construct Sudoku puzzles of varying difficulty. The teams were awarded plaques and certificates for their work. The solutions will be published in *The UMAP Journal: Undergraduate Mathematics and Its Applications*.

—From an MAA announcement

2008 International Mathematical Olympiad

The forty-ninth International Mathematical Olympiad (IMO) was held in Madrid, Spain, July 10–22, 2008. The IMO is the preeminent mathematical competition for high-school-age students from around the world. This year 535 young mathematicians from 97 countries competed. The IMO consists of solving six extremely challenging mathematical problems in a nine-hour competition administered over two days.

The team from China finished first, with 217 points and five gold medals; the Russian Federation was second, with 199 points and six gold medals; and the United States finished third, with 190 points and four gold medals.

The U.S. team consisted of ALEX ZHAI (University Laboratory High School, Urbana, Illinois), COLIN SANDON (Essex High School, Essex Junction, Vermont), KRISHANU ROY SANKAR (Horace Mann School, Riverdale, New York), SHAUNAK KISHORE (Unionville High School, Kennett Square, Pennsylvania), EVAN O'DORNEY (Berkeley Math Circle, Berkeley, California), and PAUL CHRISTIANO (The Harker School, San Jose, California). Zhai, Sandon, Sankar, and Kishore received gold medals; O'Dorney and Christiano won silver. Zhai achieved a perfect score.

The Mathematical Association of America sponsors the U.S. team through its American Mathematics Competitions program, with travel support provided by a grant from the Army Research Office. Training for the team at the University of Nebraska-Lincoln is aided by a grant from the Akamai Foundation. Additional support for the team is provided by the National Council of Teachers of Mathematics.

—Elaine Kehoe

NSF Postdoctoral Fellowships Awarded

The Mathematical Sciences Postdoctoral Research Fellowship program of the Division of Mathematical Sciences (DMS) of the National Science Foundation (NSF) awards fellowships each year for postdoctoral research in pure mathematics, applied mathematics and operations research, and statistics. Following are the names of the fellowship recipients for 2008, together with their Ph.D. institutions (in parentheses) and the institutions at which they will use their fellowships.

JAROD D. ALPER (Stanford University), Columbia University; JOHN A. BALDWIN (Columbia University), Princeton University; NAWAF BOU-RABEE (California Institute of Technology), New York University; JEREMY S. BRANDMAN (University of California Los Angeles), New York University; STEVEN K. BUTLER (University of California San Diego), University of California Los Angeles; MATTHEW B. DAY (University of Chicago), California Institute of Technology; INESSA EPSTEIN (University of California Los Angeles), California Institute of Technology; JOEL W. FISH (New York University), Stanford University; DAVID S. FREEMAN (University of California Berkeley), Stanford University; WILLIAM D. GILLAM (Columbia University), Brown University; MARK HOEFFER (University of Colorado, Boulder), Columbia University; WILLIAM P. HOOPER (State University of New York, Stony Brook), Northwestern University; ANGELA B. HUGEBACK (University of Chicago), University of Washington; JUSTIN C. KAO (Northwestern University), Massachusetts Institute of Technology; SARA C. KOCH (Cornell University), University of Warwick; ALEX KONTOROVICH (Columbia University), Brown University; KAREN M. LANGE (University of Chicago), University of Notre Dame; LIONEL LEVINE (University of California Berkeley), Massachusetts Institute of Technology; JOEL C. MILLER (University of Cambridge), Harvard University; ERIN C. MUNRO (Tufts University), Boston University; SCOTT A. NORRIS (Northwestern University), Harvard University; KATHARINE A. OTT (University of Virginia), University of Kentucky; MANISH M. PATNAIK (Yale University), Harvard University; JONATHAN R. PETERSON (University of Minnesota), University of Wisconsin; PAUL P. POLLACK (Dartmouth College), University of Illinois, Urbana-Champaign; BRENDON P. RHOADES (University of Minnesota), University of California Berkeley; MATHEW D. ROGERS (University of British Columbia), University of Illinois, Urbana-Champaign; YANIR A. RUBINSTEIN (Massachusetts Institute of Technology), Johns Hopkins University; SUSAN J. SIERRA (University of Michigan), University of Washington; KATHERINE E. STANGE (Brown University), Harvard University; SAMUEL N. STECHMANN (New York University), University of California Los Angeles; BRIAN T. STREET (Princeton University), University of Toronto; JOHN R. TAYLOR (University of California San Diego), Massachusetts Institute of Technology; FRANK H. THORNE (University of Wisconsin), Stanford University; IAN I. TICE (New York University), Brown University; ROBERT E. WAELDER (University of California Los Angeles),

University of Illinois, Chicago; JARED WEINSTEIN (University of California Berkeley), University of California Los Angeles; JONATHAN WISE (Brown University), Stanford University; TATIANA YARMOLA (New York University), University of Maryland, College Park; JOSEPHINE T. YU (University of California Berkeley), Massachusetts Institute of Technology; JESSICA V. ZUNIGA (Cornell University), Stanford University.

—NSF announcement

William E. Odom, 1932–2008

Lt. General William E. Odom died May 30, 2008. He was a specialist in Russian affairs and in intelligence. From 1985 to 1988 he served as director of the National Security Agency (NSA), having previously headed the Army Intelligence Service. Odom frequently told Congress that if it provided funds to recruit sufficiently many quality mathematicians and high-end computers, NSA would always know what the Russians were about. As director of NSA he broke down some of the barriers between NSA mathematicians and mathematicians outside of NSA and he began NSA funding of academic mathematicians.

In the mid-1990s, Odom headed the National Science Foundation (NSF) Senior Assessment Panel of U.S. Mathematics, which compared U.S. mathematics with that in other regions of the world, specifically Europe and the Pacific Rim. The report, of which he was very proud, was published in 1998 and made the case that U.S. mathematics was the leader but that other regions were rapidly becoming its equal. The report called for greater funding for U.S. mathematics and for mathematicians to be leaders in interdisciplinary research. A strong advocate for mathematics and its role in other disciplines, Odom knew many in Congress and in the administration and did not hesitate to make the case for mathematics. The increase in funding for NSF's Division of Mathematical Sciences in the early years of this century can be attributed to his advocacy.

General Odom saw action in Vietnam, earned a Ph.D. from Columbia University in 1970 in comparative politics, and was the U.S. military attaché to the U.S. embassy in Moscow from 1972 to 1974. He served as military advisor to Zbigniew Brzezinski when the latter was national security advisor to President Carter. In 1988 Odom retired from the military and began an academic career as a Senior Fellow at the Hudson Institute and as a professor at Yale and Georgetown. He authored seven books. While a military hawk during the cold war, he was a vocal opponent of the Iraq war from its beginning.

General Odom was not a mathematician, but he was a very strong advocate for mathematics and a dear friend to me and many mathematicians.

—D. J. Lewis, *University of Michigan, Ann Arbor*

Research topic:
Arithmetic of L-functions

Education Theme:
Making Mathematical Connections

A three-week summer program for
graduate students
undergraduate students
mathematics researchers
undergraduate faculty
secondary school teachers
math education researchers

IAS/Park City Mathematics Institute (PCMI)

June 28 – July 18, 2009

Park City, Utah

Organizers: Cristian Popescu, University of California, San Diego; Karl Rubin, University of California, Irvine; and Alice Silverberg, University of California, Irvine.

Graduate Summer School Lecturers: David Burns, Kings College, London; Henri Darmon, McGill University; Benedict Gross, Harvard University; Guido Kings, Regensburg University; Manfred Kolster, McMaster University; Cristian Popescu, University of California, San Diego; David Rohrlich, Boston University; Karl Rubin, University of California, Irvine; John Tate, University of Texas at Austin; and Doug Ulmer, University of Arizona.

Clay Senior Scholars in Residence: Benedict Gross, Harvard University; and John Tate, University of Texas at Austin.

Other Organizers: Undergraduate Summer School and Undergraduate Faculty Program: Aaron Bertram, University of Utah; and Andrew Bernoff, Harvey Mudd College. Secondary School Teachers Program: Gail Burrill, Michigan State University; Carol Hattan, Vancouver, WA; and James King, University of Washington.

Applications: pcmi.ias.edu

Deadline: January 28, 2009

IAS/Park City Mathematics Institute

Institute for Advanced Study, Princeton, NJ 08540

Financial Support Available

City University of Hong Kong is one of eight tertiary institutions funded by the Government of the Hong Kong Special Administrative Region through the University Grants Committee of Hong Kong. A young and dynamic institution, the University aspires to be internationally recognized as a leading university in the Asia-Pacific region through excellence in professional education and applied research. It has a growing international reputation, as evidenced by its surge up the rankings of the world's top 200 universities according to the Times Higher Education Supplement. The mission of the University is to nurture and develop the talents of students and to create applicable knowledge in order to support social and economic advancement. Currently, approximately 26,000 students are enrolled in over 180 programmes ranging from associate degrees to PhD. The medium of instruction is English.

The University invites applications for the following posts. Candidates with applied research achievements will receive very positive consideration. Relevant experience in business and industry will be a definite asset.

Associate Professor/Assistant Professor (2 posts) **Department of Mathematics [Ref. A/539/49]**

Duties : Teach undergraduate and postgraduate courses, supervise research students, conduct research in areas of Applied Mathematics, and perform any other duties as assigned.

Requirements : A PhD in Mathematics/Applied Mathematics/Statistics with an excellent research record.

Salary and Conditions of Service

Salary offered will be highly competitive and commensurate with qualifications and experience. Appointment will be on a fixed-term gratuity-bearing contract. Fringe benefits include annual leave, medical and dental schemes, and housing benefits where applicable.

Application and Information

Further information about the posts and the University is available at <http://www.cityu.edu.hk>, or from the Human Resources Office, City University of Hong Kong, Tat Chee Avenue, Kowloon, Hong Kong [Fax : (852) 2788 1154 or (852) 2788 9334/email: hrojob@cityu.edu.hk]. Please send an application letter enclosing a current curriculum vitae to the Human Resources Office by **16 January 2009**. Please quote the reference of the post applied for in the application and on the envelope.

The University reserves the right to consider late applications and nominations, and to fill or not to fill the positions. Personal data provided by applicants will be used for recruitment and other employment-related purposes.