Mathematics People

De Lellis and Hairer Awarded Fermat Prize

CAMILLO DE LELLIS of the University of Zurich and MARTIN HAIRER of the University of Warwick have been jointly awarded the 2013 Fermat Prize. De Lellis was honored for his fundamental contributions (in collaboration with László Székelyhidi) to the conjecture of Onsager about dissipative solutions of the Euler equations and for his work in the regularity of minimal surfaces. Hairer was honored for his contributions to the analysis of stochastic partial differential equations, especially for the regularity of their solutions and convergence to the equilibrium. The Fermat Prize is given every two years for research in fields in which Pierre de Fermat made major contributions: statements of variational principles, foundations of probability and analytic geometry, and number theory. The prize carries a cash value of 20,000 euros (approximately US$27,300).

—*Elaine Kehoe*

Marshall Scholarships Awarded

Three students in the mathematical sciences have been awarded Marshall Scholarships for 2014. WEI "DAVID" JIA of Stanford University is a student of mathematics, computer science, and poetry; he will study neuroscience at Oxford University. MATTHEW MCMILLAN of Wheaton College, Wheaton, Illinois, will earn his bachelor's degree in mathematics and physics with an honors thesis on embedded contact homology. He plans to take Part III of the Mathematical Tripos at Cambridge and the M.St. in philosophy of physics at Oxford. KIRIN SINHA of the Massachusetts Institute of Technology studies theoretical mathematics and electrical engineering and computer science, with a minor in music. She founded SHINE, a community service organization targeted at encouraging seventh-grade girls to pursue the study of mathematics through a combination of dance and math. She will pursue Part III of the Mathematical Tripos at Cambridge and hopes to expand SHINE internationally.

Marshall Scholarships finance young Americans of high ability to study for a degree in the United Kingdom. Up to forty scholars are selected each year to study at graduate level at a U.K. institution in any field of study.

—*From a Marshall Scholarships announcement*

PECASE Awards Announced

Four young scientists whose work involves the mathematical sciences have received Presidential Early Career Awards for Scientists and Engineers (PECASE) from President Obama. Three were nominated by the National Science Foundation (NSF) and one by the Department of Defense (DOD). Those nominated by the NSF, who were among nineteen NSF nominees, are the following. TAMARA MOORE of the University of Minnesota is the STEM Education Center Codirector at the university. Her research is focused on uncovering the most effective tools and techniques that educators can use to inspire students. Tamara's research is based on the idea that teaching STEM subjects in a realistic context will further develop student interest. BENJAMIN RECHT of the University of Wisconsin, Madison, was recognized for his research in scalable computational tools for large-scale data analysis, statistical signal processing, and machine learning. His work explores the intersections of convex optimization, mathematical statistics, and randomized algorithms. DAVID SAVITT of the University of Arizona was recognized for his work in number theory, specifically Galois representations, modular forms, and p-adic Hodge theory. He is also the deputy director of Canada/USA Mathcamp, a summer program for high school students. The nominee of the DOD is RAMON VAN HANDEL of Princeton University, who was recognized for his work in probability theory, stochastic analysis, ergodic theory, mathematical statistics, information theory, mathematical physics, and applied mathematics.

—*Elaine Kehoe*

Huang and Zelditch Awarded 2013 Bergman Prize

XIAOJUN HUANG of Rutgers University and STEVE ZELDITCH of Northwestern University have been awarded the 2013 Stefan Bergman Prize. Established in 1988, the prize recognizes mathematical accomplishments in the areas

of research in which Stefan Bergman worked. Huang and Zelditch will equally share US$24,564, which is the 2013 income from the Stefan Bergman Trust.

The previous Bergman Prize winners are: David W. Catlin (1989), Steven R. Bell and Ewa Ligocka (1991), Charles Fefferman (1992), Yum Tong Siu (1993), John Erik Fornæss (1994), Harold P. Boas and Emil J. Straube (1995), David E. Barrett and Michael Christ (1997), John P. D'Angelo (1999), Masatake Kuranishi (2000), László Lempert and Sidney Webster (2001), M. Salah Baouendi and Linda Preiss Rothschild (2003), Joseph J. Kohn (2004), Elias M. Stein (2005), Kengo Hirachi (2006), Alexander Nagel and Stephen Wainger (2007–2008), Ngaiming Mok and Duong H. Phong (2009), Gennadi Henkin (2011), and David Jerison and John M. Lee (2012).

On the selection committee for the 2013 prize were Harold P. Boas, Alexander Nagel, and Duong Phong.

Citation: Xiaojun Huang

Xiaojun Huang is recognized for innovative and influential contributions to CR geometry. He has introduced original ideas and powerful techniques to resolve fundamental problems such as the algebraicity of holomorphic maps between algebraic strongly pseudoconvex hypersurfaces in different dimensions, the rigidity of proper holomorphic maps between balls in complex spaces of different dimensions, and a longstanding question of Moser about the moduli space of Bishop surfaces having vanishing Bishop invariant.

Biographical Sketch: Xiaojun Huang

Xiaojun Huang was born on November 1, 1963, in China. He received his bachelor's degree in engineering (in the area of aircraft design) in 1983 from Nanjing University of Aeronautics and Astronautics. He received his master's degree in mathematics in 1986 from Wuhan University and served there as a teaching instructor until he came to the U.S.A. in 1989. Huang obtained his Ph.D. from Washington University in 1994. He was an L. E. Dickson Instructor at the University of Chicago from 1994 to 1997.

Xiaojun Huang

In 1995/1996 he was appointed as a postdoctoral research fellow at the Mathematical Sciences Research Institute in Berkeley. Since September 1997, he has been on the faculty of the mathematics department of Rutgers University, where he is currently a distinguished professor. Huang has held visiting positions at several institutions including Wuhan University, the Chinese University of Hong Kong, the University of California at San Diego, the University of Rouen in France, and Harvard University. Huang was named an AMS fellow of the class of 2014. His invited mathematical talks include an invited plenary address at the 29th Biannual Brazilian Mathematics Colloquium at the Instituto de Matemática Pura e Aplicada in Brazil in August 2013 and an AMS invited address at the fall 2013 sectional meeting in Philadelphia in October 2013.

Citation: Steve Zelditch

Steve Zelditch is recognized for his ever expanding the horizon of applications of the Bergman kernel. From his semiclassical viewpoint and with his strikingly original vision, he has found deep and diverse relations between the Bergman kernel and many other areas, including complex geometry, probability, and mathematical physics. In the process, he has infused the whole subject of the Bergman kernel with a new vitality.

Biographical Sketch: Steve Zelditch

Steve Zelditch is Wayne and Elizabeth Jones Professor of Mathematics at Northwestern University. He got his bachelor's degree from Harvard and his Ph.D. from the University of California at Berkeley in 1981. He was Ritt Assistant Professor at Columbia (1981–1985), was at Johns Hopkins from assistant to full professor (1986–2009), and moved to Northwestern in 2010. He was an invited speaker at the International Congress of Mathematicians in Beijing (2004) and has twice been an invited speaker at the International Congress of Mathematical Physics. He gave Current Developments in Mathematics lectures at Harvard in 2009 and an invited AMS national address in 2005. He has been on the editorial boards of *Annales Scientifiques de l'École Normale Supérieure*, the *American Journal of Mathematics*, and the *Journal of Mathematical Physics* and is currently on the editorial boards of the *Communications in Mathematical Physics, Analysis & PDE*, and *Journal of Geometric Analysis*.

Steve Zelditch

About the Prize

The Bergman Prize honors the memory of Stefan Bergman, best known for his research in several complex variables, as well as the Bergman projection and the Bergman kernel function that bear his name. A native of Poland, he taught at Stanford University for many years and died in 1977 at the age of eighty-two. He was an AMS member for thirty-five years. When his wife died, the terms of her will stipulated that funds should go toward a special prize in her husband's honor.

The AMS was asked by Wells Fargo Bank of California, the managers of the Bergman Trust, to assemble a committee to select recipients of the prize. In addition the AMS assisted Wells Fargo in interpreting the terms of the will to assure sufficient breadth in the mathematical areas in which the prize may be given. Awards are made every one or two years in the following areas: (1) the theory of the kernel function and its applications in real and complex analysis and (2) function-theoretic methods in the theory of partial differential equations of elliptic type with attention to Bergman's operator method.

—Allyn Jackson