
Mathematics People

Virag Receives Synge Award

BALINT VIRAG of the University of Toronto has been chosen the recipient of the John L. Synge Award of the Royal Society of Canada. According to the prize citation, he “is world renowned as a leader in research into probability theory. His many contributions to the subject include groundbreaking results on the subject of random walks. His remarkable concept of the ‘Brownian Carousel’ has solved fundamental problems in the theory of random matrices and will undoubtedly find many further applications in the years ahead. His work has been recognized internationally, including by an invitation to International Congress of Mathematicians.” The Synge Award is given for outstanding research in any branch of the mathematical sciences.

—*From a Royal Society announcement*

Martínez Awarded Rubio de Francia Prize

ANGEL CASTRO MARTÍNEZ has been awarded the Rubio de Francia Prize of the Royal Spanish Mathematical Society (RSME) for his contributions to partial differential equations and fluid mechanics, in particular for his results in the problem of the occurrence of singularities, which in turn contribute to the understanding of the formation of turbulence in incompressible fluids.

The prize honors the memory of J. L. Rubio de Francia (1949–1988), an internationally renowned Spanish analyst. It is awarded annually to a young mathematician from Spain, or residing in Spain, and it is the highest distinction given by the RSME. The prize carries a monetary award of 3,000 euros (approximately US\$3,800). The prize jury consisted of Noga Alon, Jesús Bastero Eleizalde (chair), Alvaro Pelayo, Gilles Pisier, Marta Sanz-Solé, Cédric Villani, and Claire Voisin.

Recent prize recipients, in chronological order, include A. Enciso, C. Beltran, A. Pelayo, F. Gancedo, and M. Pe Pereira.

—*From a Royal Spanish Mathematical Society announcement*

Prizes of the Canadian Mathematical Society

FRÉDÉRIC GOURDEAU of Université Laval has been named the recipient of the 2014 Adrien Pouliot Award in recognition of his “outstanding contributions to mathematics education in Canada.” His accomplishments include launching the magazine *Accromath* in 2006 and founding and serving as president of the Association Québécoise des Jeux Mathématiques (AQJM). He gave a lecture at the 2012 International Congress in Seoul, Korea. He has served as president of the Canadian Mathematics Education Study Group and has been Canada’s representative at the International Commission on Mathematical Instruction since 2011.

The Adrien Pouliot Award was inaugurated in 1995 to recognize individuals who have made significant and sustained contributions to mathematics education in Canada. The award is named for Adrien Pouliot, the second CMS president, who taught mathematics at Université Laval for fifty years and was instrumental in developing Laval’s engineering and science faculty.

XIANGWEN ZHANG has been named the recipient of the 2014 Doctoral Prize for his thesis “Complex Monge-Ampère Equation and Its Applications in Complex Geometry,” in which he “solves many problems related to the Monge-Ampère equations on manifolds—which have been a subject of extensive study since 1978.” He was the recipient of the Alexis D. and W. Charles Pelletier Fellowship in 2012 and of the Carl Herz Prize in 2011. His work has been published in several mathematics journals.

The CMS Doctoral Prize is awarded annually to recognize a Canadian doctoral student who has demonstrated exceptional performance in the area of mathematical research.

—*From CMS announcements*

2014 Davidson Fellows Selected

Four high school students whose projects involved the mathematical sciences are among the twenty students

named 2014 Davidson Fellows. RAVI JAGADEESAN, eighteen, of Naperville, Illinois, was awarded a top prize of a scholarship worth US\$50,000 for his mathematics project “A New Galois Invariant of Dessins d’Enfants.” RITESH RAGAVENDER, seventeen, of Kendall Park, New Jersey, was awarded a US\$25,000 scholarship for his mathematics project “Odd Dunkl Operators and nilHecke Algebras.” KEVIN LEE, seventeen, of Irvine, California, was awarded a US\$10,000 scholarship for his mathematics project “Strongly Coupled Electromechanical Modeling of the Heart in Moving Domains Using the Phase-Field Method.” SARA K. SIMPSON, seventeen, of San Diego, California, received a top award of US\$50,000 for her science project “Neuronal Nonlinear Dynamics: From an Optical Illusion to Parkinson’s Disease,” which involves mathematical modeling of neuron responses.

The Davidson Fellows program, a project of the Davidson Institute for Talent Development, awards scholarships to students eighteen years of age or younger who have created significant projects that have the potential to benefit society in the fields of science, technology, mathematics, literature, music, and philosophy.

—From a Davidson Fellows announcement

NDSEG Fellowships Awarded

Eleven young mathematicians have been awarded National Defense Science and Engineering Graduate (NDSEG) Fellowships by the Department of Defense (DoD) for 2014. The fellowships are sponsored by the United States Army, Navy, and Air Force. As a means of increasing the number of US citizens trained in disciplines of military importance in science and engineering, DoD awards fellowships to individuals who have demonstrated ability and special aptitude for advanced training in science and engineering.

The following are the names of the fellows in mathematics, their institutions, and the offices that awarded the fellowships: ALBERT AI, University of California Berkeley, Air Force Office of Scientific Research (AFOSR); THOMAS CHARTRAND, University of California Davis, AFOSR; GURBIR DHILLON, Stanford University, Army Research Office (ARO); JESSICA HWANG, Stanford University, ARO; EUGENE KASTEVICH, Stanford University, Office of Naval Research (ONR); KARA KARPMAN, Cornell University, AFOSR; JASON KAYE, New York University, AFOSR; JOSEPH LEE, Harvard University, AFOSR; MATTHEW MIZUHARA, Pennsylvania State University, ARO; KIRILL SERKH, Yale University, AFOSR; LYNELLE YE, Harvard University, AFOSR.

—From an NDSEG announcement

B. H. Neumann Awards Given

The Australian Mathematics Trust has awarded two B. H. Neumann Awards for service to the mathematics profession. The honorees are HOLLY GYTON and ALAN PARRIS. The awards honor Bernhard H. Neumann, who supported

mathematics and mathematics teaching at all levels in Australia.

—From an Australian Mathematics Trust announcement

Klaus Peters

On July 7, 2014, mathematics lost one of its most widely known and highly respected publishers. Klaus Peters died unexpectedly at home in Sherborn, Massachusetts.

He will be long remembered for his wide influence on mathematical publishing, first with Springer and subsequently with Birkhäuser Boston, Academic Press, and finally the firm A K Peters. Before he went into publishing, he earned a doctorate in complex analysis from the University of Erlangen (1962) under the supervision of Reinhold Remmert and Georg Nöbeling. After teaching at Erlangen for two years, in 1964 he was invited by Springer-Verlag to become their first in-house mathematics editor. Walter Kaufmann-Bühler was named as the second mathematics editor for Springer in Heidelberg, and together they formed a powerful editorial team. That also marked the year that Springer opened its first American office, and Klaus soon found himself dividing his time between Heidelberg and New York.

In 1972 he was named one of Springer’s directors. He hired Alice Merker, who had earned degrees from Rochester and Chicago, to become a mathematics editor at Springer New York in 1972. Later that year she moved to the Heidelberg office. Kaufmann-Bühler moved to the New York office. In September 1972 Klaus and Alice were married. Seven years later they left Springer to establish the American branch of Birkhäuser, later moving to Academic Press. In 1992 Klaus and Alice formed A K Peters, Ltd., which was acquired by CRC Press/Taylor and Francis in 2010. Recently Klaus had been consulting with the American Mathematical Society on a number of different projects.

Klaus’s passion for mathematics and good exposition ran deep, and in 1972 he, together with Kaufmann-Bühler and Alice Peters, introduced *The Mathematical Inteligencer* to the mathematical world. The publisher was identified as The Yellow Press. In this first issue he wrote, “I have thought for some time that we need an informal forum for debating questions of mutual interest to the mathematical community and Springer Verlag. This forum should be frank, amusing, informative, and, of course, relevant. It is not without hesitation that I offer this no. 0—the product of our spare time—for public criticism.” Sections included the unusual: “Affairs and Forthcoming Weddings,” “Fiction,” “Exercise,” “Walks in Mathematics,”



Photo by Gert-Martin Greuel, ©2007 MFO.

Klaus Peters

and “News from Hades.” In 1976 the *Intelligencer* became a Springer publication in magazine format.

Klaus possessed a wonderful imagination that resulted in several new publishing ventures, including *The Mathematical Intelligencer*, the *Journal of Experimental Mathematics*, and some notable books, among them: *Hilbert and Courant*, both by Constance Reid; *The Honors Class*, by Benjamin Yandell; *The Mathematical Experience*, by Philip Davis and Reuben Hersh; *You Can Count on Monsters*, by Richard Evan Schwartz, and *A Cultural History of Physics*, by Károly Simonyi.

Klaus’s love of mathematics publishing was exceeded only by his love of family. He treasured being a husband, father, and grandfather. I (D.J.A.) cannot recall a single meeting or telephone conversation in which he did not bring up the accomplishments of his three children and, as time went on, his grandchildren.

—Donald J. Albers and Gerald L. Alexanderson

Maynard Awarded 2014 SASTRA Ramanujan Prize

JAMES MAYNARD of Oxford University and the University of Montreal has been awarded the 2014 SASTRA Ramanujan Prize, awarded annually for outstanding contributions by young mathematicians to areas influenced by the work of Srinivasa Ramanujan. The age limit for the prize has been set at thirty-two because Ramanujan achieved so much in his brief life of thirty-two years. The prize will be awarded in December 2014 at the International Conference on Number Theory at SASTRA University in Kumbakonam (Ramanujan’s hometown), where the prize has been given annually.

The prize citation reads as follows: “James Maynard is awarded the 2014 SASTRA Ramanujan Prize for his revolutionary contributions to prime number theory, for making the strongest advances thus far on various long-standing problems on primes, and for the ingenious techniques he has introduced, which will influence future research in the field. The prize recognizes his fundamental doctoral thesis at Oxford University and his sensational postdoctoral work at the University of Montreal. In particular, the prize is for his 2013 paper in *Acta Arithmetica*, in which he establishes the strongest known form of the Brun-Titchmarsh inequality; his 2103 paper in the *Proceedings of the Cambridge Philosophical Society*; and his 2014 paper in *Mathematika*, in which he improves all previously known results on almost prime k -tuples. The prize also recognizes his recent paper on small gaps between primes, to appear in the *Annals of Mathematics*, in which he establishes the sensational result that the gap between consecutive primes is no more than 600 infinitely often. The prize also makes note of his recent announcements on the solution of the large gaps problem on primes due to Erdős and his joint work with Banks and Freiberg on the limit points of the sequence of normalized prime gaps.”

James Maynard was born in Chelmsford, England, in 1987 and received his PhD from Oxford University in 2013.

He was a postdoctoral fellow at the University of Montreal from 2013 to 2014.

The members of the 2014 SASTRA Ramanujan Prize Committee were: Krishnaswami Alladi (Chair; University of Florida), Roger Heath-Brown (Oxford University), Winnie Li (Pennsylvania State University), David Masser (University of Basel), Barry Mazur (Harvard University), Peter Paule (Johannes Kepler University of Linz), and Michael Rapoport (University of Bonn). Previous winners of the SASTRA Ramanujan Prize are: Manjul Bhargava and Kannan Soundararajan (2005; two full prizes), Terence Tao (2006), Ben Green (2007), Akshay Venkatesh (2008), Kathrin Bringmann (2009), Wei Zhang (2010), Roman Holowinsky (2011), Zhiwei Yun (2012), and Peter Scholze (2013).

—Krishnaswami Alladi,
University of Florida

Gurevich Receives von Kaven Award

PAVEL GUREVICH of the Freie Universität Berlin has been awarded the 2014 von Kaven Award of the Deutsche Forschungsgemeinschaft (DFG, German Science Foundation). The prize of 10,000 euros (about US\$14,000) will be presented in November 2014 in Karlsruhe, on the occasion of the Gauss Lecture of the Deutsche Mathematiker-Vereinigung.

Born in Russia in 1977, Gurevich received his PhD from Lomonosov Moscow State University in 2002 and his doctor of physical-mathematical sciences degree (equivalent to a *Habilitation*) in 2009. Since 2010 he has been at the Freie Universität Berlin. In 2015 he became a Heisenberg Fellow.

Gurevich’s main research interests are in partial differential equations and dynamical systems. Early on, his work centered on so-called nonlocal problems. His PhD and Habilitation theses dealt with singularities arising in solutions to nonlocal problems and with applications of these problems to multidimensional diffusion processes. Later his focus shifted to hysteresis phenomena and their connections with reaction-diffusion equations. Recently, he has been developing a new direction in the theory of hysteretic systems, namely hysteresis with diffusive thresholds.

The von Kaven Award is presented each year to an outstanding mathematician based in the European Union. The von Kaven Foundation was established in December 2004 by its benefactor, Herbert von Kaven, of Detmold, Germany, and the DFG’s executive board.

—From DFG announcements