

Mathematics People

Kida Awarded Operator Algebra Prize



Yoshikata Kida

YOSHIKATA KIDA of the University of Tokyo has been awarded the fifth Operator Algebra Prize “for his outstanding contributions to the interaction between ergodic theory and geometric group theory, and applications to theory of operator algebras.” The Operator Algebra Prize was established in 1999 by initiatives and contributions from some senior Japanese researchers in operator algebra theory and related fields to encourage young researchers. The prize is awarded every four years for outstanding contributions to operator algebra theory and related areas to a person under forty years of age either of Japanese nationality or principally based in a Japanese institution. The prize consists of a cash award of about US\$3,000, a prize certificate, and a medal.

—Yasuyuki Kawahigashi, Chair,
Operator Algebra Prize Committee

Nisan Awarded Knuth Prize



Noam Nisan

NOAM NISAN of the Hebrew University of Jerusalem has been awarded the 2016 Donald E. Knuth Prize “for fundamental and lasting contributions to theoretical computer science in areas including communication complexity, pseudorandom number generators, interactive proofs, and

algorithmic game theory.” The prize citation reads in part: “Nisan’s work has had a fundamental impact on complexity theory, which examines which problems could conceivably be solved by a computer under limits on its resources, whether it is on its computation time, space used, amount of randomness or parallelism. One of the major ways in which computer scientists have explored the complexity limits is through the use of randomized algorithms. Nisan has made major contributions exploring the power of randomness in computations. His work designing pseudorandom number generators has offered many insights on whether, and in what settings, the use of randomization in efficient algorithms can be reduced.” The Knuth Prize is given jointly by the Association for Computing Machinery (ACM) Special Interest Group on Algorithms and Computation Theory (SIGACT) and the Institute of Electrical and Electronics Engineers (IEEE) Computer Society Technical Committee on the Mathematical Foundations of Computing (TCMF). The award carries a cash prize of US\$5,000.

—From an ACM announcement

Rothvoss Awarded 2016 Packard Fellowship



Thomas Rothvoss

THOMAS ROTHVOSS of the University of Washington has been awarded a Packard Fellowship by the David and Lucile Packard Foundation. The Fellowship provides a grant of US\$875,000 over five years to allow the recipient to pursue his or her research. Rothvoss works in computer and information sciences. His research deals with the question of which types of computational problems can be solved efficiently by algorithms and which ones cannot. In particular, he develops techniques to find approximate solutions to

computationally hard problems. He tells the *Notices*: “I did my undergraduate studies in computer science back in Dortmund, Germany. But quickly I got fascinated by questions in particular in complexity theory and I gave up my goal of getting a real job, turning to mathematics and theoretical computer science research. To get my head free, I like hiking in the Pacific Northwest as well as biking.”

—From a Packard Foundation announcement

Morrison Awarded Australian Mathematical Society Medal



Scott Morrison

SCOTT MORRISON of the Australian National University has been awarded the 2015 Australian Mathematical Society Medal for his research in Khovanov homology, derived topological quantum field theories, and small examples of subfactors and tensor categories. Morrison is one of the founders of MathOverflow and a member of the arXiv’s mathematics advisory board. He tells the *Notices*: “I’m really excited about quantum symmetries, tensor categories, and topological matter!” The medal is awarded annually to a member of the Society under the age of forty for distinguished research in the mathematical sciences, a significant portion of which should be carried out in Australia.

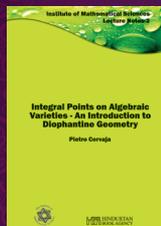
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INTEGRAL POINTS ON ALGEBRAIC VARIETIES An Introduction to Diophantine Geometry

Pietro Corvaja, *Università degli Studi di Udine, Italy*

This book is intended to be an introduction to Diophantine geometry. The central theme is the investigation of the distribution of integral points on algebraic varieties.

The text rapidly introduces problems in Diophantine geometry, especially those involving integral points, assuming a geometrical perspective. It presents recent results not available in textbooks and also new viewpoints on classical material.

In some instances, proofs have been replaced by a detailed analysis of particular cases. Readers are referred to the quoted papers for complete proofs.

Siegel’s finiteness theorem for integral points on curves plays a central role. The book ends with the analysis of integral points on surfaces.

Hindustan Book Agency; 2016; 84 pages; Softcover; ISBN: 978-93-80250-83-0; List US\$28; AMS members US\$22.40; Order code HIN/71



HILBERT’S SEVENTH PROBLEM Solutions and Extensions

Robert Tubbs, *University of Colorado, Boulder, CO*

This exposition is primarily a survey of the elementary yet subtle innovations of several mathematicians between 1929 and 1934 that led to partial and then complete solutions to Hilbert’s Seventh Problem (from the International Congress of Mathematicians in Paris, 1900).

This volume is suitable for both mathematics students wishing to experience how different mathematical ideas can come together to establish results and for research mathematicians interested in the fascinating progression of mathematical ideas that solved Hilbert’s problem and established a modern theory of transcendental numbers.

Hindustan Book Agency; 2016; 94 pages; Softcover; ISBN: 978-93-80250-82-3; List US\$28; AMS members US\$22.40; Order code HIN/72

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