

Mathematics People

Cormode and Samworth Awarded 2017 Adams Prize



Graham Cormode



Richard Samworth

GRAHAM CORMODE of the University of Warwick and RICHARD SAMWORTH of the University of Cambridge have been awarded the 2017 Adams Prize for achievements in the field of statistical analysis of big data by the University of Cambridge. Both are faculty fellows of the Alan Turing Institute.

Cormode leads the University of Warwick's partnership with the Institute. His current research concerns verification of machine learning, privacy, data management, and big data analysis with applications to Internet scale data, vehicle data, telecommunications, and social data. His work has been used by organizations including Google, Netflix, and Twitter. Cormode tells the *Notices*:

"Although fascinated by mathematics at school, I studied computer science at Cambridge, and have labeled myself a computer scientist since then. This award allows me to claim that the disciplinary boundaries between computer science and mathematics are much more permeable than people may believe. I am currently revisiting the foundations of the subject with my son, Adam, and newborn daughter, Anna." Samworth's main research interests are in developing methodology and theory for high-dimensional and nonparametric statistical inference. He is currently particularly interested in techniques for handling statistical challenges in big data that rely on perturbations of the data and aggregation. Samworth tells the *Notices*: "After spending much of my youth playing sport, I now enjoy giving visitors various challenges, including kneeling on a Swiss ball, and throwing juggling balls against a wall above a door and catching them behind one's back while walking through."

The Adams Prize is awarded annually by the Faculty of Mathematics at the University of Cambridge to a math-

ematician based in the United Kingdom for distinguished research in the mathematical sciences. The joint recipients will share a cash prize of 15,000 British pounds (approximately US\$19,500).

—From a University of Cambridge announcement

2017 Rollo Davidson Prize Awarded



Jian Ding



Nike Sun

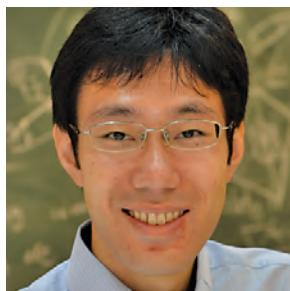
JIAN DING of the University of Chicago and NIKE SUN of the University of California Berkeley have been awarded the 2017 Rollo Davidson Prize. Ding was honored for his achievements on mixing and cover times and on the random k -SAT conjecture. Sun was selected for her achievements in probability theory and, specifically, on the random k -SAT conjecture. The Rollo Davidson Trust was founded in 1975 and awards the annual prize to young mathematicians working in the field of probability.

—From a Davidson Trust announcement

Prizes of the Mathematical Society of Japan

The Mathematical Society of Japan (MSJ) has awarded several prizes for 2017.

The Spring Prize was awarded to TOMOYUKI ABE of Kavli Institute for the Physics and Mathematics of the Universe, University of Tokyo, for his outstanding contributions to the study of arithmetic D -module theory and Langlands correspondence. The Spring Prize and the Autumn Prize are the most prestigious prizes awarded by the MSJ to its members. The Spring Prize is awarded



Tomoyuki Abe

to those under the age of forty who have obtained outstanding mathematical results.

The 2017 Algebra Prize was awarded to TOSHIYUKI KATSURA of Hosei University for work in algebraic geometry in positive characteristic; to MASANOBU KANEKO of Kyushu University for research on quasimodular forms and multiple zeta values; and to MITSUYASU

HASHIMOTO of Okayama University for contributions to invariant theory and its applications to commutative ring theory.

The Outstanding Paper Prize for 2017 was awarded to BO BERNDTSSON of the Chalmers University of Technology and LÁSZLÓ LEMPERT of Purdue University for their paper, "A Proof of the Ohsawa-Takegoshi Theorem with Sharp Estimates," *Journal of the Mathematical Society of Japan* **68** (2016), no. 4.

—From *MSJ announcements*

Huang Awarded CAIMS/Fields Industrial Mathematics Prize

HUAXIONG HUANG of York University has been awarded the CAIMS-Fields Industrial Mathematics Prize given by the Fields Institute and the Canadian Applied and Industrial Mathematics Society (CAIMS). According to the prize citation, he has more than seventy-five journal publications "that involve a surprisingly broad cross-section of applied mathematics, including partial differential equations, asymptotics, fluid mechanics, probability, stochastic processes, and scientific computing. His work impacts a broad sphere of influence to the study of applications ranging from industrial sectors such as banking, insurance, biomedicine, energy, and material science." He was the inaugural industrial coordinator at the Pacific Institute of Mathematical Sciences (PIMS). He played a critical role in the early years of the Industrial Problem-Solving Workshops and was also involved in the Graduate Industrial Mathematical Modeling Camps. The CAIMS-Fields annual Industrial Mathematics Prize is awarded to a researcher in recognition of exceptional research in any branch of industrial mathematics, interpreted broadly. The nominee's research should have been conducted primarily in Canada.

—From a CAIMS/Fields announcement

Joseph F. Traub Prize for Achievement in Information-Based Complexity

THOMAS KÜHN of the University of Leipzig and WINFRIED SICKEL of the University of Jena have been named the recipients of the 2017 Joseph F. Traub Prize for Information-Based Complexity. The prize carries a cash award of US\$3,000, to be divided between the recipients.

—Traub Prize Committee announcement

AWM Essay Contest Winners Announced

The Association for Women in Mathematics (AWM) has announced the winners of its 2017 essay contest, "Biographies of Contemporary Women in Mathematics." The grand prize was awarded to KAREN GE of Naperville North High School, Naperville, Illinois, for her essay, "The Limit Does Not Exist," about Elizabeth Moore of Naperville North High School. The essay also won first place in the high school category and will be published in the *AWM Newsletter*. First place in the undergraduate category was awarded to YIXUAN HE of Dartmouth College for the essay "Persisting through Barriers of Inequality: A Biography of Dr. Seema Nanda," about Seema Nanda of Dartmouth College. First prize in the middle school category was awarded to ASMI KUMAR of Northwestern Middle School, Milton, Georgia, for the essay "Breaking Barriers—A Mathematical Journey" about Suzy Crowe, Career Technology Department Chair at Fulton County Schools.

—From an AWM announcement

Moody's Mega Math Challenge

The winners of the 2017 Mega Math Challenge for high school students have been announced. The topic for this year was "From Sea to Shining Sea: Looking Ahead with the National Park Service."

The Champion Team Prize of US\$20,000 in scholarship money was awarded to a team from Adlai E. Stevenson High School in Lincolnshire, Illinois. The team members were JOSHUA YOON, HAOTIANG YU, ANDREW HWANG, DEEPAK MOPARTHI, and ALBERT CAO. Their coach was Paul Kim.

The First Runner-Up Team Prize of US\$15,000 in scholarship money was awarded to a team from Westford Academy in Westford, Massachusetts. The team members were NIHAR SHETH, HARSHAL SHETH, KARTIK SINGH, and ADITHYA VELLAL. Their coach was Lisa Gartner.

The Third Place Team Prize of US\$10,000 in scholarship money was awarded to a team from Johns Creek High School in Alpharetta, Georgia. The team members were DANIEL BODEA, JAMIE WANG, ANSHUL TUSNIAL,

AKHIL VAIDYA, and ALEX HAMMOND. They were coached by Julie Meert.

Finalist Team Prizes of US\$5,000 were awarded to three teams. The team from High Technology High School in Lincroft, New Jersey, consisted of LORI ZHANG, ANJALI NAMBRATH, ERIC JIANG, ARVIND YALAVARTI, and KEVIN YAN. They were coached by Ellen LeBlanc. The team from Montgomery Blair High School in Silver Spring, Maryland, consisted of JAMES VINSON, ESHAN TEWARI, SIDDHARTH TANEJA, ANDREW KOMO, and ANNIE ZHAO. They were coached by William Rose. The team from the North Carolina School of Science and Mathematics in Durham, North Carolina, consisted of ANGELA DENG, EVAN JIANG, MIGUEL DE LOS REYES, LUCY WU, and DORY LI. They were coached by Dan Teague.

The Mega Math Challenge invites teams of high school juniors and seniors to solve an open-ended, realistic, challenging modeling problem focused on real-world issues. The top five teams receive awards ranging from US\$5,000 to US\$20,000 in scholarship money. The competition is sponsored by the Moody's Foundation, a charitable foundation established by Moody's Corporation, and organized by the Society for Industrial and Applied Mathematics (SIAM).

—From a Moody's Foundation/SIAM announcement

writings on the subject have appeared in a number of books on mathematics and statistics education.

Kenney's prize citation reads in part: "She was an outstanding teacher, a strong leader for many professional organizations, a mentor for hundreds of classroom teachers, and an advocate for including discrete mathematics in the mathematics curriculum. The summer discrete mathematics institutes Peg facilitated were the highlight of professional development opportunities for hundreds of teachers who looked forward to working with her each year." She earned her PhD from Boston College and spent her career there. She assisted, instructed, or served as project coordinator in nearly fifty programs funded by the National Science Foundation. She was coauthor of *Navigating through Discrete Mathematics* in grades K-5 and grades 6-12. She lectured or presented in more than 440 institutes, seminars, and courses in Europe, Australia, Canada, and across the United States. A member of the boards of directors of both the Association of Teachers of Mathematics in Massachusetts and New England, she served as president of both associations. She was a charter member of the Massachusetts Hall of Fame for Mathematics Educators (inducted in 2004) and was recognized by the Council of Presidential Awardees for outstanding contributions to mathematics education. She passed away on July 5, 2016.

—From an NCTM announcement

NCTM Lifetime Achievement Awards



J. Michael Shaughnessy

The National Council of Teachers of Mathematics (NCTM) has chosen two educators to receive Lifetime Achievement Awards for 2017. They are J. MICHAEL SHAUGHNESSY of Portland State University and the late MARGARET J. KENNEY of Boston College.

According to the prize citation, Shaughnessy's "infectious passion for the teaching and learning of mathematics has inspired mathematics students and teachers. With integrity, and a sense of humor, he has engaged us all in thinking about critically important ideas in mathematics education through his dedicated teaching, research publications, and talks and presentations." His work "is widely recognized for



Margaret J. Kenney

its contributions to students' understanding of chance and data as well as students' geometric thinking." He was a member of the NCTM board of directors and is a past president. His research has included work on how students think and learn about probability and statistics, and his

Scott Awarded Jones Medal

The 2016 Jones Medal has been awarded to ALASTAIR SCOTT for his contributions during a more than fifty-year career in statistics "through path-breaking research in survey sampling and biostatistics, and through service to the wider statistical profession in academia, government, and society." Scott died in May of this year.

The Jones medal was established in 2010 by the Royal Society Te Aparangi of New Zealand in honor of Sir Vaughan Jones, 1990 Fields Medalist. The medal is awarded biennially for lifetime achievement in pure or applied mathematics or statistics by a person with substantial connections to New Zealand.

—New Zealand Mathematics Research Institute

National Academy of Sciences Election

The National Academy of Sciences (NAS) has elected its new members and foreign associates for 2017. Following are the new members whose work involves the mathematical sciences.

- NIMA ARKANI-HAMED, Institute for Advanced Study
- ALEXANDER BEILINSON, University of Chicago
- MAURY D. BRAMSON, University of Minnesota
- RONALD A. DEVORE, Texas A&M University
- NOAM D. ELKIES, Harvard University

- DANIEL A. SPIELMAN, Yale University
 - MADHU SUDAN, Harvard University
 - DON B. ZAGIER, Max Planck Institute for Mathematics
 - SHIGEFUMI MORI, Kyoto University, foreign associate
- From an NAS announcement

2017 Royal Society Elections

The Royal Society of London has elected its class of Fellows for 2017, including the following Fellows whose work involves the mathematical sciences.

- MARK GROSS, Cambridge University
- SUBHASH KHOT, New York University
- LAWRENCE PAULSON, Cambridge University
- GORDON SLADE, University of British Columbia

Elected as a Foreign Member was WHITFIELD DIFFIE, Stanford University.

—From a Royal Society announcement

Komaravolu S. Chandrasekharan (1920–2017)

K. S. Chandrasekharan, known for his work in number theory and summability, received, among other distinctions, the Padma Shri Award, one of the highest civilian honors of India. Born in the province now called Andhra Pradesh, he received his PhD at the University of Madras in 1946, under the direction of K. Ananda Rau (who had done his PhD with G. H. Hardy in Cambridge and had known Ramanujan). Chandrasekharan built up the Tata School of Mathematics and attracted to it many outstanding international researchers. In 1965, he took a position at the ETH in Zurich, where he remained until his retirement in 1988. He served as president of the International Mathematical Union from 1971 to 1974. Chandrasekharan was a man of great culture and wide knowledge, as can be seen in his review of the autobiography of Laurent Schwartz, which appeared in the October 1998 issue of the *Notices*.¹

—Allyn Jackson

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¹ www.ams.org/notices/199809/chandra.pdf

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