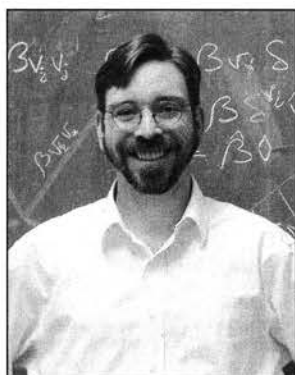# Mathematics People

Henry H. Kim

John E. Meier

2003–2004 AMS Centennial Fellowships Awarded

The AMS has awarded two Centennial Fellowships for 2003–04. The recipients are HENRY H. KIM, of the University of Toronto, and JOHN E. MEIER, of Lafayette College. The amount of each fellowship is $57,000, with an additional expense allowance of $1,600.

Henry H. Kim

Henry H. Kim received his Ph.D. in 1992 from the University of Chicago under the supervision of Walter L. Baily. He was a research assistant professor at Purdue University (1992–94) and a postdoctoral fellow at the Mathematical Sciences Research Institute (1994–95) in Berkeley. He was an assistant professor at Southern Illinois University (1995–2001) and is currently an associate professor at the University of Toronto. He was a member of the Institute for Advanced Study during the special year 1999–2000 in automorphic forms and L-functions.

Kim's main research interest is in the theory of automorphic forms and L-functions via Langlands' program. By combining the Langlands-Shahidi method and the converse theorem of Cogdell and Piatetski-Shapiro, Kim and his collaborators obtained many instances of Langlands' functoriality, such as functoriality of the symmetric cube and the symmetric fourth, and opened the door to exciting new developments in automorphic representations and analytic number theory. He will continue to study Langlands' functoriality and its applications to analytic number theory.

He plans to use the Centennial Fellowship to visit Purdue University and Yale University.

John E. Meier

John E. Meier received his Ph.D. from Cornell University in 1992 under the direction of Ken Brown. Immediately after graduation he took up a position at Lafayette College, where he is currently an associate professor.

Meier's research has touched on many areas in geometric group theory, with a heavy emphasis on the use of geometry in studying group cohomology. He has gotten concrete results on finiteness properties, duality properties, and the asymptotic topology of infinite groups using generalized nonpositive curvature techniques.

The Centennial Fellowship will allow him to spend the year visiting Columbia University and the University of California, Santa Barbara.

Please note: Information about the competition for the 2004–05 AMS Centennial Fellowships will be published in the "Mathematics Opportunities" section of an upcoming issue of the *Notices*.

—Allyn Jackson

Ferran Sunyer i Balaguer Prize Awarded

The Council of the Ferran Sunyer i Balaguer Foundation, at its meeting in April 2003, approved the proposal made by its scientific committee to award the 2003 Ferran Sunyer i Balaguer Prize to FUENSANTA ANDREU-VAILLO and JOSÉ M. MAZON, from the Universitat de València, and to VICENT CASELLAS, from the Universitat Pompeu Fabra, for the work *Parabolic Quasilinear Equations Minimizing Linear Growth Functionals.*

The most notable part of the work is a remarkable solution to a problem that was studied for ten years by the best specialists in image processing. The solution represents important progress not only for this subject but also for other areas that can be studied using the same mathematical methods.

The prize was awarded during a ceremony that took place on April 24, 2003, at the Institut d'Estudis Catalans (IEC) in Barcelona. The prize consists of 10,000 euros (approximately US$11,000), and the monograph will be published by Birkhäuser in the series Progress in Mathematics.

The Ferran Sunyer i Balaguer Foundation (http://www.crm.es/FerranSunyerBalaguer/ffsb.htm) of the IEC awards this international prize every year to honor the memory of Ferran Sunyer i Balaguer (1912–1967), a self-taught Catalan mathematician who gained international recognition for his research in mathematical analysis. His achievements are the more impressive given the serious physical disabilities with which he was born.

The present scientific committee is composed of: Hyman Bass, University of Michigan; Antonio Córdoba, Universidad Autónoma de Madrid; Paul Malliavin, Université de Paris VI; Joseph Oesterlé, Institut de Mathématiques de Jussieu; and Warren Dicks, Universitat Autònoma de Barcelona.

—From a news release of the Ferran Sunyer i Balaguer Foundation

Choquet-Bruhat and York Awarded 2003 Heineman Prize

YVONNE CHOQUET-BRUHAT, of the Université Pierre et Marie Curie, and JAMES YORK, of Cornell University, have been awarded the Dannie Heineman Prize for Mathematical Physics "for their separate as well as joint work in proving the existence and uniqueness of solutions to Einstein's gravitational field equations for a variety of sources and for formulating these equations so as to improve numerical solution procedures with relevance to realistic physical systems."

The prize carries a cash award of $7,500 and is presented in recognition of outstanding publications in the field of mathematical physics. The prize was established in 1959 by the Heineman Foundation for Research, Educational, Charitable, and Scientific Purposes, Inc., and is administered jointly by the American Physical Society (APS) and the American Institute of Physics (AIP). The prize is presented annually.

—From an APS announcement

Green Awarded DeMorgan Medal

The London Mathematical Society (LMS) has awarded the 2001 DeMorgan Medal for outstanding contributions to mathematics to J. A. GREEN, of the University of Warwick, for his contributions to group representation theory. Early in his career Green gave the complex character table of $GL(n, q)$ in all generality. He later established the now-fundamental Green correspondence in the modular representation theory of finite groups and developed the axiomatic representation theory and the categorical representation theory that has been at the center of much of the most recent work in this area. His work on polynomial representations of general linear groups, in which he exploited the Schur algebra, has been enormously influential. More recently, he has made substantial contributions to the study of representations of quantum groups via a relationship with Hall algebras.

—From a London Mathematical Society announcement

Guionnet Awarded Rollo Davidson Prize

The trustees of the Rollo Davidson Trust have awarded the 2003 Rollo Davidson Prize to ALICE GUIONNET, of École Normale Supérieure de Lyon, for her achievements in particle systems and the relation between large deviations and large random matrices.

The prize was established to commemorate the life and work of Rollo Davidson and is awarded to young scientists of outstanding promise and achievement for work in probability, statistics, and related areas.

—From a Rollo Davidson Trust announcement

Presidential Awards for Mentoring

An individual mathematician and two institutional programs in mathematics are among the recipients of the 2002 Presidential Awards for Excellence in Science, Mathematics, and Engineering Mentoring. The awards are administered and funded through the National Science Foundation (NSF). They recognize outstanding individual efforts and organizational programs designed to increase the participation of underrepresented groups in mathematics, engineering, and science from kindergarten through

twelfth grade and on through the graduate level. Up to ten individuals and ten institutions annually may qualify for the award, which includes a $10,000 grant and a commemorative presidential certificate.

LOUIS DALE, of the University of Alabama, Birmingham, is the mathematician chosen to receive the award. Dale received his Ph.D. in mathematics from the University of Alabama, Tuscaloosa, in 1973. He has been an assistant professor at Atlanta University and chairman of the Division of Natural Sciences (1968–70) and interim dean (1970–71) at Miles College, his undergraduate institution. Since receiving his doctorate he has been affiliated with the University of Alabama, Birmingham, in many capacities besides teaching: as affirmative action officer (1975–81); as director of the Alabama Alliance for Minority Participation Project (1991–present); and as associate vice president, both for academic affairs (1991–95) and for minority and special programs (1995–97). Since 1997 he has been associate provost for minority and special programs. He has served on many committees concerned with minority student and faculty affairs.

The programs chosen are Arizona Mathematics, Engineering, and Science Achievement (MESA) and Strengthening the Understanding of Mathematics and Sciences Institute (SUMS), both at Arizona State University (ASU). The SUMS program, which was created and is directed by mathematician JOAQUIN BUSTOZ, has helped more than 1,600 inner-city and reservation students prepare to study mathematics, engineering, and science. The MESA program is a consortium between the University of Arizona, ASU, and Estrella Mountain Community College that prepares students from fifty-five schools for mathematics, engineering, and science at the elementary and secondary education levels. The program is aimed at students from underrepresented groups as well as first-generation and low-income students. The ASU MESA program works with more than thirty schools and several American Indian reservations.

—*Elaine Kehoe*

2003 Sloan Fellows Announced

The Alfred P. Sloan Foundation has announced the names of 117 outstanding young scientists and economists who have been selected to receive Sloan Research Fellowships. Grants of $40,000 for a two-year period are administered by each fellow's institution. Once chosen, fellows are free to pursue whatever lines of inquiry most interest them, and they are permitted to employ fellowship funds in a wide variety of ways to further their research aims. More than five hundred nominations for the 2003 awards were reviewed by a committee of distinguished scientists. The mathematicians on the committee were George C. Papanicolaou, Stanford University; Peter Sarnak, Princeton University; and Ronald J. Stern, University of California, Irvine.

Following are the names of the 2003 Sloan Fellows who work in the mathematical sciences: IAN AGOL, University of Illinois, Chicago; GUILLAUME BAL, Columbia University; SAUGATA BASU, Georgia Institute of Technology; DANNY CALEGARI, California Institute of Technology; JAMES E. COLLIANDER, University of Toronto; RONALD FEDKIW, Stanford University (computer science); WEE TECK GAN, Princeton University; TOM GRABER, University of California, Berkeley; CHRISTOPHER HACON, University of Utah; BRENDAN HASSETT, Rice University; MICHAEL HUTCHINGS, University of California, Berkeley; ALEXANDRU D. IONESCU, University of Wisconsin, Madison; TRACHETTE L. JACKSON, University of Michigan, Ann Arbor; NAVIN KHANEJA, Harvard University; ZHIQIN LU, University of California, Irvine; STEPHEN D. MILLER, Rutgers University, New Brunswick; ROBERT MORRIS, Massachusetts Institute of Technology (computer science); ALEXANDER POSTNIKOV, Massachusetts Institute of Technology; SYLVIA SERFATY, New York University; LUMINITA VESE, University of California, Los Angeles; MU-TAO WANG, Columbia University; and ANDRZEJ ZUK, University of Chicago.

—*Alfred P. Sloan announcement*

NSF Graduate Research Fellowships Announced

The National Science Foundation (NSF) has awarded its Graduate Research Fellowships for fiscal year 2003. This program supports students pursuing doctoral study in all areas of science and engineering and provides a stipend of $18,000 per year for three years of full-time graduate study. Listed below are the names of the awardees in the mathematical sciences for 2003, followed by their undergraduate institutions (in parentheses) and the institutions at which they plan to pursue graduate work.

KATHERINE A. BOLD (University of Texas, Austin), New School University, New York; NICHOLAS T. BRONN (Georgia Institute of Technology), Massachusetts Institute of Technology; LINCOLN J. CHANDLER (Florida Agricultural and Mechanical University), Massachusetts Institute of Technology; DENNIS B. CLARK (Harvard University), University of Chicago; KEVIN P. COSTELLO (California Institute of Technology), University of Waterloo; ANDREW W. COTTON (Harvard University), University of California, Berkeley; NATHANIEL G. ELDREDGE (Harvey Mudd College), Stanford University; JAMES A. FOWLER (Harvard University), Cornell University; NATHAN D. GEORGE (North Carolina State University), Massachusetts Institute of Technology; JEFFREY H. GIANSIRACUSA (University of Washington), University of California, Berkeley; KATHLEEN A. GRUHER (University of Chicago), Massachusetts Institute of Technology; WEI HO (Harvard University), Princeton University; BRYCE Z. JOHNSON (Washington University), University of Chicago; RYAN D. KINSER (University of Kansas), University of Michigan; MELANIE M. LEE (University of California, Los Angeles), Stanford University; EREZ S. LIEBERMAN (Princeton University), Harvard University; IVAN G. PETRAKIEV (Massachusetts Institute of Technology),

Harvard University; PAUL P. POLLACK (University of Georgia), Princeton University; JOSEPH D. RABINOFF (Harvard University), Massachusetts Institute of Technology; ROSALYN C. RAEL (Western New Mexico University), Cornell University; YANIR A. RUBINSTEIN (Technion-Israel Institute of Technology), Massachusetts Institute of Technology; DEENA R. SCHMIDT (University of Akron), Cornell University; ELIZABETH A. SCOTT (Rice University), University of California, Berkeley; YAKOV M. SHAPIRO (Boston University), University of California, Berkeley; IAN T. TICE (University of Kansas), Columbia University; DAVID P. VENER (Georgia Institute of Technology), Massachusetts Institute of Technology; ANDREW WAND (Georgia Institute of Technology), University of California, Berkeley; BENJAMIN T. WEBSTER (Simon's Rock College of Bard), University of California, Berkeley; KIRSTEN G. WICKELGREN (Harvard University), Princeton University; HEIDI L. WILLIAMS (Dartmouth College), Brown University; MELANIE E. WOOD (Duke University), Harvard University; TATIANA V. YARMOLA (University of California, Berkeley), Cornell University; and JOSEPHINE T. YU (University of California, Davis), Massachusetts Institute of Technology.

Editor's note: The institutions of graduate study listed here are from the students' original applications. In some cases students will have switched institutions by the time the fellowship tenure begins.

—From an NSF announcement

Guggenheim Fellowships Awarded

The John Simon Guggenheim Memorial Foundation has announced the names of 184 artists, scholars, and scientists who were selected as Guggenheim Fellows from more than 3,200 applicants in the 2003 competition. The awards totaled $6,750,000. Guggenheim Fellows are appointed on the basis of distinguished achievement in the past and exceptional promise for future accomplishment. Following are the names of the awardees who work in the mathematical sciences, together with their affiliations and areas of research interest: MICHEL C. DELFOUR, University of Montreal: Intrinsic theory of thin and asymptotic shells; NEIL IMMERMAN, University of Massachusetts, Amherst: Applications of descriptive and dynamic complexity; BONG H. LIAN, Brandeis University: Studies in mirror symmetry, geometry, and arithmetic; KEN ONO, University of Wisconsin, Madison: Studies in number theory; RICHARD E. SCHWARTZ, University of Maryland, College Park: Connections between real and complex hyperbolic discrete groups; FEI-RAN TIAN, Ohio State University: Nonlinear dispersive oscillations; and JACK XIN, University of Texas at Austin: Partial differential equations for processing audio signals.

—From a Guggenheim Foundation news release

Fulbright Awards Announced

The J. William Fulbright Foundation and the United States Information Agency have announced the names of the recipients of the Fulbright Foreign Scholarships for 2002–2003. Following are the U.S. scholars in the mathematical sciences who have been awarded Fulbright scholarships to lecture or conduct research, together with their home institutions and the countries in which they plan to use the awards.

HERNAN G. ABELEDO (George Washington University), Argentina; DARL D. BIEN (University of Denver), Thailand; JONATHAN D. FARLEY (Vanderbilt University), United Kingdom; KRZYSZTOF JAROSZ (Southern Illinois University, Edwardsville), Poland; HERBERT C. LYON (Black Hawk College, Moline, Illinois), Oman; SYED M. TARIQ RIZVI (Ohio State University, Lima), India; and MARK R. WOODARD (Furman University), Barbados.

—From a Fulbright Foundation announcement

2003 Intel Science Talent Search Winners Announced

Two high school students working in mathematics have been awarded Intel Science Talent Search Scholarships for 2003. ANATOLY PREYGEL, a seventeen-year-old student at Montgomery Blair High School in Silver Spring, Maryland, won third prize and a $50,000 scholarship for his study of knot theory entitled "Computation of Quandle Cocycle Knot Invariants". LESTER W. MACKEY, an eighteen-year-old student at Half Hollow Hills High School West, Dix Hills, New York, won sixth prize and a $25,000 scholarship for his project "A Combinatorial Proof of Seymour's Conjecture for Regular Oriented Graphs with Almost Regular Outsets $O'a$ and $O''a$".

—From an Intel Corporation announcement

National Academy of Engineering Elections

The National Academy of Engineering (NAE) has announced the election of 77 new members and nine foreign associates, including two whose work involves the mathematical sciences. EUGENE W. MYERS, of the University of California, Berkeley, was elected for pioneering research and leadership in the development of computational methods of genome sequencing and assembly. ELAINE S. ORAN, of the U.S. Naval Research Laboratory, was elected for unifying engineering, scientific, and mathematical disciplines into a computational methodology to solve challenging aerospace combustion problems.

—From a National Academy of Engineering announcement