2016 Class of the Fellows of the AMS

Fifty mathematical scientists from around the world have been named Fellows of the American Mathematical Society (AMS) for 2016.

The Fellows of the American Mathematical Society program recognizes members who have made outstanding contributions to the creation, exposition, advancement, communication, and utilization of mathematics. Among the goals of the program are to create an enlarged class of mathematicians recognized by their peers as distinguished for their contributions to the profession and to honor excellence.

The 2016 class of Fellows was honored at a dessert reception held during the Joint Mathematics Meetings in Seattle, Washington. Names of the individuals who are in this year's class, their institutions, and citations appear below.

The nomination period for Fellows is open each year from February 1 to March 31. For additional information about the Fellows program, as well as instructions for making nominations, visit the web page `www.ams.org/profession/ams-fellows`.

AMS President Robert Bryant greeting Professor William A. Massey, Princeton University and Professor Terrance Pendleton, Iowa State University.

Jim Agler, University of California, San Diego
For contributions to operator theory and the theory of analytic functions of several complex variables.

Noga Alon, Tel Aviv University
For contributions to combinatorics, theoretical computer science, combinatorial geometry, information theory, and related areas.

Shiferaw Berhanu, Temple University
For contributions to complex analysis and partial differential equations, and for service to the global mathematical community.

Alexandru Buium, University of New Mexico
For contributions to number theory and algebraic geometry, particularly the development of a theory of arithmetic differential equations.

Eric Anders Carlen, Rutgers The State University of New Jersey, New Brunswick
For contributions to functional analysis, mathematical physics, and probability.

Sun-Yung Alice Chang, Princeton University
For contributions to geometric analysis, nonlinear partial differential equations, and harmonic analysis.

Vyjayanthi Chari, University of California, Riverside
For contributions to the theory of quantum groups and affine Lie algebras, and for service to the mathematical community.

J. Brian Conrey, American Institute of Mathematics
For contributions to research and exposition in number theory, and for service to the profession.

Steven Dale Cutkosky, University of Missouri-Columbia
For contributions to algebraic and analytic geometry and to commutative algebra, and for exposition.

Mihalis Dafermos, Princeton University
For contributions to general relativity and partial differential equations.

Lisette de Pillis, Harvey Mudd College
For contributions to mathematical oncology and immunology research, leadership in mathematical biology education, and for service to the mathematical community.

William Duke, University of California, Los Angeles
For contributions to analytic number theory and the theory of automorphic forms.

John Erik Fornaess, Norwegian University of Science and Technology
For contributions to several complex variables and to complex dynamics.

Alexander Furman, University of Illinois at Chicago
For contributions to dynamical systems, ergodic theory, and Lie groups.

Andrei Gabrielov, Purdue University
For contributions to real algebraic and analytic geometry, and the theory of singularities, and for contributions to geophysics.

Martin Hairer, University of Warwick
For contributions to the theory of stochastic partial differential equations, in particular introducing a theory of regularity structures for such equations.

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Patricia Hersh, North Carolina State University
For contributions to algebraic and topological combinatorics, and for service to the mathematical community.

Olga V. Holtz, University of California, Berkeley
For contributions to numerical linear algebra, numerical analysis, approximation theory, theoretical computer science, and algebra.

Martin Kassabov, Cornell University
For contributions to the theory of discrete groups and their growth and expansion properties.

Ju-Lee Kim, Massachusetts Institute of Technology
For contributions to the representation theory of semisimple groups over nonarchimedean local fields and for service to the profession.

Alexander Kleshchev, University of Oregon
For contributions to the representation theory of finite groups, Hecke algebras, and Kac-Moody algebras, and for exposition.

Nancy Kopell, Boston University
For contributions to dynamical systems, applications to neuroscience, and leadership in mathematical biology.

Joachim Krieger, École Polytechnique Fédérale de Lausanne (EPFL)
For contributions to nonlinear hyperbolic equations.

Tao Li, Boston College
For contributions to low-dimensional topology, especially the topology of three-manifolds.

Francois Loeser, Université Pierre et Marie Curie (Paris VI)
For contributions to algebraic and arithmetic geometry and to model theory.

Valery Lunts, Indiana University, Bloomington
For contributions to algebraic and arithmetic geometry and to model theory.

Svitlana Mayboroda, University of Minnesota-Twin Cities
For contributions to harmonic analysis, partial differential equations, and applications to mathematical physics.

Ralph Mckenzie, Vanderbilt University
For contributions to universal algebra and for mathematical exposition.

Cristopher Moore, Santa Fe Institute
For contributions to randomized algorithms and quantum computing, bridging mathematics, statistical physics, and theoretical computer science.

Yiannis N. Moschovakis, University of California, Los Angeles
For contributions to mathematical logic, especially set theory and computability theory, and for exposition.

Lee Mosher, Rutgers The State University of New Jersey, New Brunswick
For contributions to geometric group theory.

Hagey Family Professor of Mathematics Cesar E. Silva, Williams College and Lingurn H. Burkhead Professor Erica Flapan, Pomona College.

János Pach, Ecole Polytechnique Fédérale de Lausanne (EPFL) and Alfréd Rényi Institute of Mathematics, Hungarian Academy of Sciences
For contributions to discrete and combinatorial geometry and to convexity and combinatorics.

Nataša Pavlović, University of Texas at Austin
For contributions to nonlinear analysis and partial differential equations, and for mentoring and service to the mathematical community.

Robert L. Pego, Carnegie Mellon University
For contributions to partial differential equations and applied mathematics.

James Propp, University of Massachusetts, Lowell
For contributions to combinatorics and probability, and for mentoring and exposition.

Robert Rumely, University of Georgia
For contributions to arithmetic potential theory, computational number theory, and arithmetic dynamics.

Thomas Schlumprecht, Texas A&M University
For contributions to the geometry of Banach spaces.

Natasa Sesum, Rutgers The State University of New Jersey, New Brunswick
For contributions to geometric analysis.

Michael Shub, The City University of New York, The Graduate Center
For contributions to smooth dynamics and to complexity theory.

Thomas C. Sideris, University of California, Santa Barbara
For contributions to nonlinear partial differential equations arising in physics, fluid dynamics, and elasticity.

Michael Sipser, Massachusetts Institute of Technology
For contributions to complexity theory and for leadership and service to the mathematical community.

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Professor Krishnaswami Alladi and wife Mathura with Alice Bertram.

Karen E. Smith, University of Michigan
For contributions to commutative algebra and algebraic geometry.

Avraham Soffer, Rutgers The State University of New Jersey, New Brunswick
For contributions to mathematical physics and nonlinear partial differential equations.

Glenn H. Stevens, Boston University
For contributions to the theory of p-adic modular forms and for service to the mathematical community.

Steven H. Strogatz, Cornell University
For contributions to nonlinear dynamics and complex systems, and for the promotion of mathematics in the public sphere.

Domingo Toledo, University of Utah
For contributions to complex and algebraic geometry, the topology of algebraic varieties, and the study of representations of fundamental groups of Kähler manifolds.

Vilmos Totik, University of South Florida and the University of Szeged
For contributions to classical analysis and approximation theory and for exposition.

Vladimir Turaev, Indiana University, Bloomington
For contributions to low-dimensional topology and topological quantum field theory.

Alexis Vasseur, University of Texas at Austin
For contributions to fluid mechanics, transport theory, calculus of variations, and kinetic theory, and for mentoring and professional leadership.

Shou-Wu Zhang, Princeton University
For contributions to Arakelov geometry, arithmetic dynamics, and for extensions of the Gross-Zagier formula.

—See more at: `www.ams.org/profession/ams-fellows/new-fellows`

—Photos courtesy of Steve Schneider/JMM.