Sixty-three mathematical scientists from around the world have been named Fellows of the American Mathematical Society (AMS) for 2015, the program’s second year.

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 2015 class of Fellows was honored at a dessert reception held during the Joint Mathematics Meetings in San Antonio, TX. 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.

Alfonso Castro, Harvey Mudd College
For contributions to nonlinear analysis and elliptic partial differential equations as well as for service to individual departments and the larger community.

Xiuxiong Chen, Stony Brook University
For contributions to differential geometry, particularly the theory of extremal Kahler metrics.

Nikolai Chernov, University of Alabama at Birmingham
For contributions to dynamical systems and statistical mechanics.

Henry Cohn, Microsoft Research
For contributions to discrete mathematics, including applications to computer science and physics.

Marc Culler, University of Illinois at Chicago
For contributions to geometry and topology of 3-manifolds, geometric group theory, and the development of software for mathematical research.

Jesus A. DeLoera, University of California, Davis
For contributions to discrete geometry and combinatorial optimization as well as for service to the profession, including mentoring and diversity.

Paul Dupuis, Brown University
For contributions to the theoretical and numerical study of stochastic systems, as well as for editorial contributions and mentoring.

Alan Edelman, Massachusetts Institute of Technology
For contributions to nonsmooth analysis and classical analysis as well as experimental mathematics and visualization of mathematics.

Maury Bramson, University of Minnesota-Twin Cities
For contributions to stochastic processes and their applications.

Martin Robert Bridson, University of Oxford
For contributions to geometric group theory as well as its exposition, and for service to the mathematical community.

Daniel Bump, Stanford University
For contributions to number theory, representation theory, combinatorics, and random matrix theory, as well as mathematical exposition.

Richard Canary, University of Michigan
For contributions to low-dimensional topology and hyperbolic geometry as well as for service and teaching in mathematics.

Prakash Belkale, University of North Carolina at Chapel Hill
For contributions to algebraic geometry and representation theory.

John J. Benedetto, University of Maryland
For contributions to theoretical and applied harmonic analysis as well as for editorial service, mentoring, and professional leadership.

Andreas R. Blass, University of Michigan
For contributions to logic, computer science, algebra, and geometry, as well as exposition and mentoring.

Jonathan Michael Borwein, University of Newcastle
For contributions to nonsmooth analysis and classical analysis as well as experimental mathematics and visualization of mathematics.

Maury Bramson, University of Minnesota-Twin Cities
For contributions to stochastic processes and their applications.

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For contributions to geometric group theory as well as its exposition, and for service to the mathematical community.

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Nikolai Chernov, University of Alabama at Birmingham
For contributions to dynamical systems and statistical mechanics.

Henry Cohn, Microsoft Research
For contributions to discrete mathematics, including applications to computer science and physics.

Marc Culler, University of Illinois at Chicago
For contributions to geometry and topology of 3-manifolds, geometric group theory, and the development of software for mathematical research.

Michael W. Davis, Ohio State University, Columbus
For contributions to geometric group theory, transformation groups, and topology, particularly regarding aspherical manifolds.

Jesus A. DeLoera, University of California, Davis
For contributions to discrete geometry and combinatorial optimization as well as for service to the profession, including mentoring and diversity.

Paul Dupuis, Brown University
For contributions to the theoretical and numerical study of stochastic systems, as well as for editorial contributions and mentoring.

Alan Edelman, Massachusetts Institute of Technology
For contributions to random matrix theory, numerical linear algebra, high-performance algorithm, and applications.

Charles L. Epstein, University of Pennsylvania
For contributions to analysis, geometry, and applied mathematics including medical imaging, as well as for service to the profession.

James Allen Fill, Johns Hopkins University, Baltimore
For contributions to theory and applications of Markov chains and to probabilistic analysis of algorithms.

Donald A.S. Fraser, University of Toronto
For contributions to the theory and foundations of statistics, as well as for leadership and influence on the advancement of the statistical sciences.

Allan Greenleaf, University of Rochester
For contributions to inverse problems with applications to cloaking as well as for service to the AMS.

Continued on next page
Karsten Grove, University of Notre Dame  
For contributions to Riemannian geometry.

Matthew J. Gursky, University of Notre Dame  
For contributions to conformal geometry, nonlinear partial differential equations, and the geometry and topology of four-dimensional manifolds.

Robert M. Hardt, Rice University  
For contributions to calculus of variations, partial differential equations, and analytic approaches to geometry and topology, as well as mentoring.

Aloysius G. Helminck, North Carolina State University  
For contributions to the representations and applications of symmetric spaces as well as for leadership in developing programs that attract and retain mathematics students.

Mourad E. H. Ismail, King Saud University and the University of Central Florida  
For contributions to classical analysis and special function theory, as well as for service to the community.

Carl G. Jockusch, University of Illinois, Urbana-Champaign  
For contributions to logic, computability theory, and Turing structures.

Arthur J. Krener, University of California, Davis  
For contributions to the geometric theory of nonlinear control and estimation.

Phil Kutzko, University of Iowa  
For contributions to representations of p-adic groups and the local Langlands program, as well as for recruitment and mentoring of under-represented minority students.

David R. Larson, Texas A&M University  
For contributions to operator theory and functional analysis as well as teaching of mathematics.

Irena Lasiecka, University of Memphis  
For contributions to control theory of partial differential equations, mentorship, and service to professional societies.

Kristin E. Lauter, Microsoft Research  
For contributions to arithmetic geometry and cryptography as well as service to the community.

Fanghua Lin, New York University, Courant Institute  
For contributions to partial differential equations, geometric measure theory, calculus of variations, and applied analysis.

Hans Lindblad, Johns Hopkins University, Baltimore  
For contributions to nonlinear partial differential equations and mathematical physics.

Mitchell Luskin, University of Minnesota, Twin Cities  
For contributions to numerical analysis and applications to materials science.

Michael A. Mandell, Indiana University, Bloomington  
For contributions to algebraic topology.

Donald A. Martin, University of California, Los Angeles  
For contributions to mathematical logic, especially proofs and applications of determinacy, as well as service to the profession.

Gordana Matic, University of Georgia  
For contributions to low-dimensional and contact topology.

Jonathan Christopher Mattingly, Duke University  
For contributions to the analysis of stochastic systems.

Willard Miller Jr., University of Minnesota, Twin Cities  
For contributions to applied mathematics, especially special function theory, and for service to the mathematical community.

Washington Mio, Florida State University  
For contributions to topology as well as to the mathematics, statistics, and applications of shape analysis.

Konstantin Mishaikov, Rutgers The State University of New Jersey New Brunswick  
For contributions to dynamical systems as well as to applied and computational topology.

Irina Mitrea, Temple University  
For contributions to partial differential equations and related fields as well as outreach to women and under-represented minorities at all educational levels.

Paul S. Muhly, University of Iowa  
For contributions to operator theory as well as mentoring and service to the community.

Andrea R. Nahmod, University of Massachusetts, Amherst  
For contributions to nonlinear Fourier analysis, harmonic analysis, and partial differential equations, as well as service to the mathematical community.

Gabriel Navarro, University of Valencia  
For contributions to representation theory.

Alexander Olshanski, Vanderbilt University  
For contributions to combinatorial and geometric group theory.

Mihaela Popa, Northwestern University  
For contributions to algebraic geometry.

Andrei Rapinchuk, University of Virginia  
For contributions to the arithmetic theory of algebraic groups and geometry of locally symmetric spaces.

Charles Rez, University of Illinois, Urbana-Champaign  
For contributions to theoretical and computational aspects of algebraic topology and homotopy theory.

Igor Rivin, Temple University  
For contributions to geometry and related fields, pure and applied.

Yongbin Ruan, University of Michigan  
For contributions to geometry, theoretical physics, and their interconnections, particularly Gromov-Witten theory and quantum cohomology.

Wilhelm Schlag, University of Chicago  
For contributions to harmonic analysis, mathematical physics, and nonlinear partial differential equations.

Rolf Schneider, Albert-Ludwigs-Universitat  
For contributions to convex geometry.

Denis Serre, Ecole Normale Superieure de Lyon  
For contributions to hyperbolic conservation laws and mathematical exposition.
Brooke Shipley, University of Illinois at Chicago  
For contributions to homotopy theory and homological algebra as well as for service to the mathematical community.

Cesar E. Silva, Williams College  
For contributions to ergodic theory as well as exposition and mentoring undergraduates in research.

Christina Sormani, The City University of New York, Lehman College and The Graduate Center  
For contributions to geometry, including the study of Ricci curvature, and for mentoring activities, especially for young mathematicians from underrepresented groups.

Michael Stillman, Cornell University  
For contributions to implementation and algebra of symbolic computation.

Zhi-Qiang Wang, Utah State University  
For contributions to nonlinear analysis and applications in nonlinear differential equations.

C. Eugene Wayne, Boston University  
For contributions to dynamical systems and mathematical physics.

Charles A. Weibel, Rutgers The State University of New Jersey New Brunswick  
For contributions to K-theory, motivic cohomology, and related fields.

Christopher Thomas Woodward, Rutgers The State University of New Jersey New Brunswick  
For contributions to symplectic and algebraic geometry as well as for dedication to the teaching of mathematics.

* deceased

—See more at: [www.ams.org/profession/ams-fellows/new-fellows](http://www.ams.org/profession/ams-fellows/new-fellows)

—Photos courtesy of Goen South.