

# Class of Fellows of the AMS

Sixty-five mathematical scientists from around the world have been named Fellows of the American Mathematical Society (AMS) for 2017.

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 2017 class of Fellows was honored at a dessert reception held during the Joint Mathematics Meetings in Atlanta, Georgia. 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 Executive Director Catherine A. Roberts chats with 2017 Fellows, inlcuding Scott T. Chapman of Sam Houston State University.

**Dan Abramovich**, Brown University For contributions to algebraic geometry and service to the mathematical community.

**Guillaume Bal**, Columbia University For contributions to inverse problems and wave propagation in random media.

**John T. Baldwin**, University of Illinois at Chicago *For contributions to model theory, exposition, and service to mathematics education.* 

**Alexandra Bellow**, Northwestern University For contributions to analysis, particularly ergodic theory and measure theory, and for exposition.

**Aaron Bertram,** University of Utah *For contributions to algebraic geometry and for service to the mathematical community.* 

## **Jeffrey Brock**, Brown University

For contributions to Kleinian groups, low-dimensional topology and geometry, and Teichmüller theory.

**Jim Bryan**, The University of British Columbia *For contributions to algebraic geometry and service to the mathematical community.* 

## Gunnar Carlsson, Stanford University

For contributions to algebraic topology, particularly equivariant stable homotopy theory, algebraic K-theory, and applied algebraic topology.

**Mei-Chu Chang**, University of California, Riverside *For contributions to arithmetic combinatorics, analytic number theory, and algebraic geometry.* 

**Sagun Chanillo**, Rutgers The State University of New Jersey, New Brunswick

For contributions to partial differential equations and aeometric analysis.

**Scott T. Chapman**, Sam Houston State University For contributions to algebra and for service to the mathematical community.

**Gui-Qiang G. Chen**, University of Oxford and Keble College For contributions to partial differential equations, nonlinear analysis, fluid mechanics, hyperbolic conservation laws, and shock wave theory.

**Jungkai Alfred Chen**, National Taiwan University *For contributions to algebraic geometry and for service to the mathematical community.* 

**Mihai Ciucu**, Indiana University, Bloomington *For contributions to combinatorics, particularly relating gaps in lattice tilings to electrostatics.* 

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# FROM THE AMS SECRETARY

**Miriam Cohen**, Ben Gurion University of the Negev For contributions to Hopf algebras and their representations, and for service to the mathematical community.

#### Donatella Danielli, Purdue University

For contributions to partial differential equations and geometric measure theory, and for service to the mathematical community.

# **Moon Duchin**, Tufts University

For contributions to geometric group theory and Teichmüller theory, and for service to the mathematical community.

## Yalchin Efendiev, Texas A&M University

For contributions to the field of multiscale finite-element methods with applications to porous-media fluid flow.

**Kirsten Eisenträger,** Pennsylvania State University *For contributions to computational number theory and number-theoretic undecidability.* 

**Mark Feighn**, Rutgers The State University of New Jersey, New Brunswick

For contributions to geometric group theory.

**Rui Loja Fernandes,** University of Illinois, Urbana-Champaign

For contributions to the study of Poisson geometry and Lie algebroids, and for service to the mathematical community.

## Yan Guo, Brown University

For contributions to the mathematical theory of fluids and plasmas.

## Piotr Hajlasz, University of Pittsburgh

For contributions to analysis in metric spaces, in particular the notion of Sobolev spaces in metric-measure spaces also known as Hajlasz-Sobolev spaces.

**Kathryn Hess**, Ècole Polytechnique Fédérale de Lausanne (EPFL)

For contributions to homotopy theory, applications of topology to the analysis of biological data, and service to the mathematical community.

**Nancy Hingston**, The College of New Jersey *For contributions to differential geometry and the study of closed geodesics.* 

**Yulij Ilyashenko**, Cornell University and the National Research University Higher School of Economics *For contributions to dynamical systems and for service to the mathematical community.* 

**Marius Junge**, University of Illinois, Urbana-Champaign For contributions to the study of operator algebras, Banach spaces, harmonic analysis, and noncommutative probability, and for applications to quantum information theory.



Attendants at the 2017 Fellows of the AMS Reception.

## Dmitry Kleinbock, Brandeis University

For contributions to homogeneous dynamics and its applications to number theory, especially in metric Diophantine approximation.

# Toshiyuki Kobayashi, University of Tokyo

For contributions to the structure and representation theory of reductive Lie groups.

**Alex Kontorovich**, Rutgers The State University of New Jersey. New Brunswick

For contributions to analytic number theory and for mathematical exposition.

## Daniel Krashen, University of Georgia

For contributions to the study of central simple algebras and local-global principles and for service to the mathematical community.

## Henning Krause, Universität Bielefeld

For contributions to representation theory and homological algebra, and for service to the mathematical community.

## Michael Krivelevich, Tel Aviv University

For contributions to extremal and probabilistic combinatorics.

## Joseph M. Landsberg, Texas A&M University

For contributions to differential geometry, geometry of projective varieties, representation theory, and complexity theory.

Congming Li, University of Colorado, Boulder

For contributions to nonlinear partial differential equations and applications.

## Jian-Guo Liu, Duke University

For contributions to the analysis of numerical methods for fluid dynamics, kinetic theory, and nonlinear partial differential equations.

# FROM THE AMS SECRETARY



AMS Immediate Past President Robert L. Bryant with former AMS Executive Director and Fellow William "Bus" Jaco.

**Ciprian Manolescu**, University of California, Los Angeles *For contributions to Floer homology and the topology of manifolds.* 

**Kevin M. McCrimmon**, University of Virginia *For contributions to the theory of Jordan algebras, exposition, and service to the mathematical community.* 

**Umberto Mosco**, Worcester Polytechnic Institute *For contributions to analysis and partial differential equations, in particular for introducing a theory of variational convergence.* 

**Allen Moy**, Hong Kong University of Science and Technology

For contributions to representation theory of reductive groups over nonarchimedian local fields and for service to the mathematical community.

**Isabella Novik**, University of Washington *For contributions to algebraic and geometric combinatorics*.

**Tony Pantev**, University of Pennsylvania *For contributions to algebraic geometry, mathematical physics, and string theory, and for service to the mathematical community.* 

**Julia Pevtsova**, University of Washington *For contributions to modular representation theory.* 

Ami Radunskaya, Pomona College

For contributions to mathematical oncology, immuno-dynamics, and applications of dynamical systems to medicine, and for service to the mathematical community.

**Lasse Rempe-Gillen**, The University of Liverpool For contributions to complex dynamics and function theory, and for communication of mathematical research to broader audiences.

**Xiaochun Rong**, Rutgers The State University of New Jersey, New Brunswick

For contributions to Riemannian geometry.

**Daniel Ruberman**, Brandeis University *For contributions to low-dimensional topology.* 

**David Savitt**, Johns Hopkins University, Baltimore For contributions to number theory and service to the mathematical community.

**Richard Evan Schwartz**, Brown University For contributions to dynamics, geometry, and experimental mathematics and for exposition.

**Nimish A. Shah**, Ohio State University, Columbus *For contributions to ergodic theory and homogeneous dynamics and applications to number theory.* 

**Peter B. Shalen**, University of Illinois at Chicago *For contributions to three-dimensional topology and for exposition.* 

## **Jie Shen**, Purdue University

For contributions to theoretical numerical analysis, scientific computing, computational fluid dynamics, and computational materials science.

**Zuowei Shen**, National University of Singapore *For contributions to approximation theory, wavelet theory, and image processing.* 

**Ivan Shestakov**, Universidade de São Paulo *For contributions to nonassociative algebra and affine algebraic geometry.* 

**Sergei Starchenko**, University of Notre Dame *For contributions to model theory and its applications to geometry, analysis, number theory, and combinatorics.* 

**Jason Starr**, Stony Brook University *For contributions to algebraic geometry*.

Robert Strichartz, Cornell University

For contributions to analysis and partial differential equations, for exposition, and for service to the mathematical community.

**Daniel B. Szyld,** Temple University *For contributions to numerical and applied linear algebra.* 

**Tao Tang**, Southern University of Science and Technology *For contributions to numerical methods for partial differential equations.* 

# FROM THE AMS SECRETARY

#### Dinesh S. Thakur

University of Rochester

For contributions to the arithmetic of function fields, exposition, and service to the mathematical community.

**Dylan Paul Thurston**, Indiana University, Bloomington *For contributions to low-dimensional topology and geometry, and to cluster algebras.* 

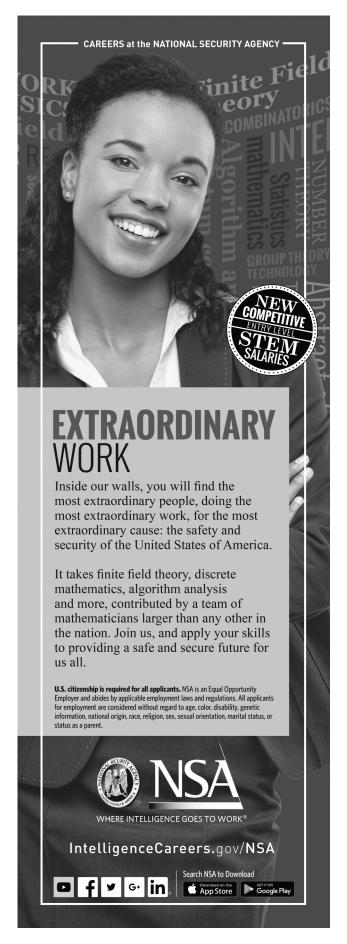
**Tatiana Toro**, University of Washington *For contributions to geometric measure theory, potential theory, and free boundary theory.* 

**Ben Weinkove**, Northwestern University For contributions to complex geometry and for service to the mathematical community.

**Alexandru Zaharescu**, University of Illinois, Urbana-Champaign and Institute of Mathematics, Romanian Academy *For contributions to analytic number theory.* 

**Ofer Zeitouni**, Weizmann Institute of Science *For contributions to probability theory.* 

<sup>—</sup>Photos courtesy of Kate Awetry/JMM 2017 photographer.



<sup>—</sup>See more at: www.ams.org/profession/ams-fellows/new-fellows