

Biographies of Candidates 2017



Biographical information about the candidates has been supplied and verified by the candidates.

Candidates have had the opportunity to make a statement of not more than 200 words (400 for presidential candidates) on any subject matter without restriction and to list up to five of their research papers.

Candidates have had the opportunity to supply a photograph to accompany their biographical information. Acronyms: AAAS (American Association for the Advancement of Science); AMS (American Mathematical Society); ASA (American Statistical Association); AWM (Association for Women in Mathematics); CBMS (Conference Board of the Mathematical Sciences); IAS (Institute for Advanced Study), ICERM (The Institute for Computational and Experimental Research in Mathematics); ICM (International Congress of Mathematicians); IMA (Institute for Mathematics and Its Applications); IMS (Institute of Mathematical Statistics); IMU (International Mathematical Union); IPAM (Institute for Pure and Applied Mathematics); LMS (London Mathematical Society); MAA (Mathematical Association of America); MSRI (Mathematical Sciences Research Institute); NAS (National Academy of Sciences); NRC (National Research Council); NSF (National Science Foundation); PIMS (Pacific Institute for the Mathematical Sciences); SIAM (Society for Industrial and Applied Mathematics); STEM (Science, Technology, Engineering and Mathematics).

President



Photo courtesy of Brown University

Jill C. Pipher

Elisha Benjamin Andrews Professor of Mathematics, Brown University.

PhD: University of California, Los Angeles, 1985.

AMS Committees: Selection Committee, Fellows Program, 2014–2016; Committee on Committees, 2014–2016; Committee on National Awards and Public Representation, 2016–2018;

Mathematics Research Communities Advisory Board, 2017–2020.

Selected Addresses: National Science Foundation–Mathematics and Physical Sciences Distinguished Lecture, 2011; MAA Distinguished Lecture, Washington DC, 2012; MAA Invited Address, Joint Mathematics Meetings, Baltimore, MD, 2014; Invited Speaker, Analysis Section, International Congress of Mathematicians, Seoul, Korea, 2014; AWM Research Symposium Plenary Speaker, University of Maryland, 2015.

Additional Information: NSF Postdoctoral Fellowship, 1987–1990; Alfred P. Sloan Foundation Fellowship, 1989–1993; Presidential Young Investigator Award, 1990–1995; Editorial Board, *Transactions of the AMS*, 1995–1997; Co-founder, NTRU Cryptosystems, Inc., 1999; Patents: 7,913,088, 7,308,097, 6,298,137 and 6,081,597; Founding Director, NSF Institute for Computational and Experimental Research in Mathematics, Brown University, 2010–2016; President, Association for Women in Mathematics, 2011–2013; Fellow, American Mathematical Society,

et al., Inaugural Class, 2012; Member, Society for Industrial and Applied Mathematics Committee on Science Policy, 2014–2018; American Academy of Arts and Sciences, Elected 2015; Member, Mathematical Association of America, Committee on Prizes and Awards, 2015–2017; Subcommittee Chair, NSF-Division of Mathematical Sciences Committee of Visitors, September 2016; Member: AWM, MAA, SIAM.

Selected Publications: 1. with C. Kenig and R. Fefferman, The theory of weights and the Dirichlet problem for elliptic equations, *Ann. of Math.* (2) **134** (1991), 65–124. **MR1114608 (93h:31010)**; 2. with G. Verchota, Dilation invariant estimates and a boundary Gårding inequality, *Ann. of Math.* (2) **142** (1995), no. 1, 1–38. **MR1338674 (96g:35052)**; 3. with J. Hoffstein and J. Silverman, NTRU: a ring-based public key cryptosystem, Algorithmic Number Theory (ANTS III), J. Buhler (ed.), *Lecture Notes in Comput. Sci.*, **1423**, Springer-Verlag (1998), 267–288. **MR1726077**; 4. with J. Hoffstein and J. Silverman, *An Introduction to Mathematical Cryptography*, Springer Undergraduate Texts in Mathematics, first edition 2008, second edition 2015. **MR3289167**; 5. with S. Hofmann, C. Kenig, and S. Mayboroda, Square function/non-tangential maximal function estimates and the Dirichlet problem for second order non-symmetric elliptic equations, *J. Amer. Math. Soc.*, **28** (2015), no. 2, 483–529. **MR3300700**.

Statement by Candidate: I am honored to be nominated for the Presidency of the American Mathematical Society, and I eagerly welcome the privilege of serving the mathematical sciences community in this capacity.

I have devoted much of my career to research, teaching, and mentoring, but I've also had many different professional experiences. I chaired the Mathematics Department at Brown University, and I founded and directed the NSF

Institute for Computational and Experimental Research in Mathematics (ICERM) for its first six years. I served as President of the Association for Women in Mathematics (AWM) and oversaw the inaugural AWM Research Symposia and the creation of the endowed research prizes. Together with two Brown colleagues, I co-founded a company and gained a firsthand appreciation of entrepreneurship and of industry research. I enjoy advocating for research, and I am excited to be the Vice President for Research at Brown University as of July 2017.

I entered the mathematical profession via a somewhat non-traditional path; my first exposure to advanced math was in college. In my freshman year, I was thrilled to discover set theory/logic and decided to pursue a research career in mathematics. I finished my undergraduate career at UCLA and entered the PhD program there. Even as an undergraduate, I had family responsibilities and part-time jobs. Consequently, I have a tremendous personal as well as professional interest in ensuring that the AMS be a welcoming society for all mathematicians and that it be fully engaged in supporting every member of our community.

If elected, I will work with energy on every aspect of the core mission of the AMS. Publications and meetings are vital to our profession. Prizes are valued acknowledgements of exceptional contributions and I'd be happy to see more recognition of the wide-ranging achievements of members of our community. I especially hope to help the AMS be an advocate for mathematical research in public, private, and government sectors.

Equally important is helping to ensure that the AMS continues to support the next generation of mathematical scientists and educators. The uncertainty of future funding for mathematics at the federal level is a pressing challenge to the profession and primarily affects early-career researchers. I plan to explore opportunities to partner with other organizations in making the case for mathematics.

The hard work of many people is required to make the AMS a healthy, dynamic, and responsive organization. I look forward to working with the dedicated staff and membership to advance these goals.



Photo courtesy of Erik Jepsen/UC San Diego Publications

Ruth J. Williams

Distinguished Professor of Mathematics and Charles Lee Powell Chair in Mathematics, University of California, San Diego.

PhD: Stanford University, 1983.

AMS Offices: Member at Large of the Council, 1991–1993.

AMS Committees: Western Section Program Committee, 1993–1994 (Chair, 1994); Committee on Meetings and Conferences,

1993–1996; Committee on the Profession, Subcommittee on Employment Issues, 1996–1997; Committee on Summer Institutes and Special Symposia, 1996–1999; Committee on Committees, 1997–1998 (Acting Chair, 1998); Liaison Committee with AAAS, 2006–2008; Committee on National

Awards and Public Representation, 2013–2014; Bôcher Prize Committee, 2016.

Selected Addresses: MAA Invited Address, JMM, Phoenix, 1989; AMS Invited Address, JMM, Cincinnati, 1994; International Congress of Mathematicians, Berlin, 1998; Doob Lecture, International Conference on Stochastic Processes and Their Applications, Oaxaca, Mexico, 2011; Kolmogorov Lecture, World Congress in Probability and Statistics, Toronto, 2016.

Additional Information: Member, Association for Women in Mathematics, 1986–present; NSF Presidential Young Investigator, 1987–1993; Alfred P. Sloan Research Fellow, 1988–1992; Fellow, Institute of Mathematical Statistics, 1992; Fellow, American Association for the Advancement of Science, 1995; Member, Society for Industrial and Applied Mathematics, 1996–present; Member, US National Committee for Mathematics, 1997–2002; Guggenheim Fellowship, 2001–2002; Member, Board of Governors of the Institute for Mathematics and Its Applications (IMA), 2003–2006; Best Publication Award, Applied Probability Society, 2007 (shared with co-authors H. Christian Gromoll and Amber L. Puha); Fellow, Institute for Operations Research and Management Science, 2008; Scientific Program Chair, World Congress in Probability and Statistics, 2008; Election to American Academy of Arts and Sciences, 2009; President, Institute of Mathematical Statistics, 2012; Inaugural Fellow, American Mathematical Society, 2012; Election to National Academy of Sciences, 2012; John von Neumann Theory Prize, shared with Martin I. Reiman, Institute for Operations Research and the Management Sciences, 2016.

Selected Publications: 1. with K. Chung, Introduction to Stochastic Integration, Birkhäuser, Boston, First Edition 1983, Second Edition, 1990. **MR1102676 (92d:60057)**; 2. with S. Varadhan, Brownian motion in a wedge with oblique reflection, *Comm. Pure Appl. Math.*, **38** (1985), no. 4, 405–443. **MR0792398 (87c:60066)**; 3. Reflecting diffusions and queueing networks, Invited paper, Proceedings of the International Congress of Mathematicians, Berlin, 1998, *Doc. Math.*, vol. 3, 321–330. **MR1648166 (99j:60149)**; 4. With Z. Chen and Z. Zhao, On the existence of positive solutions for semilinear elliptic equations with singular lower order coefficients and Dirichlet boundary conditions, *Math. Ann.*, **315** (1999), no. 4, 735–769. **MR1731467 (2001a:35061)**; 5. With D. Lipshutz, Existence, uniqueness and stability of slowly oscillating periodic solutions for delay differential equations with nonnegativity constraints, *SIAM J. Math. Anal.*, **47** (2015), no. 6, 4467–4535. **MR3427045**.

Statement by Candidate: I am deeply honored to be nominated to stand for election as President of the American Mathematical Society. I have been a dedicated member since I was a PhD student, and I am grateful for the many ways I have benefitted from the AMS's support of mathematics research, scholarship, and education.

Most conspicuous amongst AMS activities are its publication of high-quality journals, books, and reviews, and its cutting-edge meetings. In supporting employers and job seekers, the AMS has set the standard with the

development of MathJobs.Org, which was just a dream when I served on the AMS Council in the early 1990s. Less conspicuous, but extremely important, are the AMS's advocacy efforts to increase the appreciation of, and support for, mathematics.

Indeed, in these highly uncertain times, it is vitally important that the AMS redouble its efforts to emphasize the importance and impact of mathematics to policy makers and the general public. I plan to be vigorously engaged in this activity drawing on my experience with science policy gained when I served as President of the Institute of Mathematical Statistics (IMS), the main professional society amongst approximately 4000 focused on supporting mathematics research in probability and statistics.

My experience with the IMS, which publishes leading journals, will also be valuable in facing the ongoing AMS challenges of ensuring journal integrity and accessibility while maintaining financial viability. Furthermore, important mathematical content is increasingly available in a variety of forms, e.g., webpages constructed over decades by major mathematicians, videos of lectures, conference websites, blogs, etc. The AMS should take a lead in developing a systematic approach to archiving and curating these valuable materials.

Employment opportunities for mathematicians continue to expand in non-academic venues. The AMS, in partnership with mathematics institutes and societies, should help provide further resources for the training and career development of all mathematicians.

It is important for the AMS to intensify its efforts towards fostering diversity and inclusion. We can all help to support diversity efforts; personal connections can make a huge difference in encouraging those from disadvantaged or underrepresented groups. The AMS also needs to be proactive in ensuring that all mathematicians have equal access to the opportunities of our profession. As I saw, when serving on the US National Committee on Mathematics, partnering with other mathematics and scientific organizations can be very effective for this.

If elected AMS President, I will do my utmost to meet the challenges, expected and unexpected, that will arise in furthering the advancement of the full spectrum of mathematics and mathematicians.

Vice President



Photo courtesy of Ken Ono

Ken Ono

Asa Griggs Candler Professor of Mathematics, Emory University.
PhD: UCLA, 1993.

AMS Offices: Member, AMS Council, 2006-2009.

AMS Committees: *Bulletin of the AMS*, Associate Editor, Reviews, 2005-2018; *Proceedings of the AMS*, Editor, 2005-2010; Committee on Publications, 2006-2009; Research Communities

Advisory Board, 2009-2012; Committee on Committees, 2009-2010; *Proceedings of the American Mathematical*

Society, Managing Editor, 2010-2018; Working Group on Graduate Training, 2010-2012; Nominating Committee, 2012-2014; AMS-MAA-SIAM Morgan Prize Committee, 2016-2019.

Selected Addresses: Harvard-MIT Current Developments in Mathematics, 2008; AMS Invited Address, Joint Mathematics Meetings, Washington, DC, 2009; AMS Distinguished Erdős Lecture, Tucson, 2012; AMS-NZMS Maclaurin Distinguished Lecturer, New Zealand, 2017; AMS Arnold Ross Lecture, Orlando, 2017.

Additional Information: NSF CAREER Award, 1999; Alfred P. Sloan Research Fellowship, 1999; David and Lucile Packard Fellowship, 1999; Presidential Early Career Award (awarded by Clinton), 2000; John S. Guggenheim Fellowship, 2003; NSF Director's Distinguished Teaching Scholar Award, 2005; MAA, Member, 2010-present; US National Committee for Mathematics (NAS), Member, 2010-present; Fellow, AMS, 2012; Albert E. Levy Research Award, 2014; MAA Invited Address, Joint Mathematics Meetings, San Antonio, 2015; Associate Producer, *The Man Who Knew Infinity*, 2016; MAA Distinguished Polya Lecturer, 2016-2017; 2017 National Science Film Festival Technical Excellence Award.

Selected Publications: 1. with K. Soundararajan, Ramanujan's ternary quadratic form, *Invent. Math.*, **130** (1997), 415-454. **MR1483991 (99b:11036)**; 2. with C. Skinner, Fourier coefficients of half-integral weight modular forms modulo 1, *Ann. of Math. (2)* **147** (1998), no. 2, 453-470. **MR1626761 (99f:11059a)**; 3. with W. Kohlen, Indivisibility of class numbers of imaginary quadratic fields and orders of Tate-Shafarevich groups, *Invent. Math.*, **135** (1999), no. 2, 387-398. **MR1666783 (2000c:11087)**; 4. with K. Bringmann, Dyson's ranks and Maass forms, *Ann. of Math. (2)* **171** (2010), no. 1, 419-449. **MR2630043 (2011e:11165)**; 5. with J. Bruinier, Heegner divisors, L -functions and harmonic weak Maass forms, *Ann. of Math. (2)* **172** (2010), no. 3, 2135-2181. **MR2726107 (2012c:11101)**.

Statement by Candidate: I am honored to be nominated to run for Vice President of the American Mathematical Society. I have served the AMS in many ways since first becoming a member as a graduate student at UCLA in 1989. I have been an editor of the *Proceedings of the American Mathematical Society* since 2005 (serving as the Managing Editor since 2010). I have been an avid supporter of the AMS "Who Wants to Be a Mathematician" program. I have also been an active member of a wide variety of committees. My experience positions me well for the position as Vice President. If elected, I will work to promote and popularize mathematics. I will champion efforts which provide enhanced opportunities for young mathematicians and members of underrepresented groups. I will do my part to help to advise the AMS Publisher with regard to the book program and the AMS journals. Finally, I am eager to help establish a movement which aims to restore the value of academic and intellectual capital in our society. The AMS is an extraordinary organization, and I am committed to its continued success and growth.



Photo courtesy of Arlie O. Petters

Arlie O. Petters

Benjamin Powell Professor of Mathematics, Duke University.

PhD: MIT, 1991.

Selected Addresses: Einstein Centennial Lecture, Duquesne University, 2015; National Math Festival, MSRI and IAS, Washington, DC, 2015; Spring Lecture Series, University of Arkansas, 2013; TEDx Lecture, NCSSM, Durham, NC, 2012; Nagle Lecture, University of South Florida, 2010.

Additional Information: Alfred P. Sloan Research Fellow, 1998–2002; NSF Faculty Early Career Grant Award, 1998–2003; Bass Society of Fellows, 1998–present; Blackwell-Tapia Prize, 2002; Board of Governors, IMA, 2006–2010; Board of Trustees, IPAM, 2006–2010; Honorary Doctor of Science, CUNY-Hunter College, 2008; Membership in the Most Excellent Order of the British Empire, awarded by Queen Elizabeth, 2008; Robert L. Clark Award, 2011; Caribbean American Heritage Award, 2011; Dean, Academic Affairs for Trinity College of Arts and Sciences, Duke University, 2016–present.

Selected Publications: 1. with X. Dong, *An introduction to mathematical finance with applications*, Springer (2016). **MR3497142**; 2. with A. Aazami and C. Keeton, Lensing by Kerr black holes. II: analytical study of quasi-equatorial lensing observables, *J. Math. Phys.*, **52** (2011), no. 10, 102501, 26 pp. **MR2894591**; 3. with A. Aazami, A universal magnification theorem. III. Caustics beyond codimension five, *J. Math. Phys.*, **51** (2010), no. 2, 023503. **MR2605053 (2011f:58070)**; 4. with A. Tegui, and B. Rider, A mathematical theory of stochastic microlensing. II. Random images, shear, and the Kac-Rice formula, *J. Math. Phys.*, **50** (2009), no. 12, 122501. **MR2582583 (2011e:85005)**; 5. Multiplane gravitational lensing. II. Global geometry of caustics, *J. Math. Phys.*, **36** (1995), no. 8, 4276–4295. **MR1341991 (97d:58025)**.

Statement by Candidate: I am honored to run for a position as Vice President of the AMS. My love for mathematics ignited when a high school teacher showed our class the link between geometry and the motion of planetary bodies. Indeed the key role of mathematics in the fundamental discoveries of many disciplines highlights the important place of our field. I would passionately promote mathematical research within the field and across its synergistic intersections with other disciplines, industries, businesses, governmental research agencies, and work on bridges to wider employment opportunities for mathematicians.

Equally important, I believe that these efforts have to be vertically integrated and inclusive of diversity. Specifically, it is part of our collective responsibility to be stakeholders in K–12 and undergraduate mathematics education as well as in the representation of women and underrepresented minorities in mathematics.

Overall, I am fired up about promoting research, employment opportunities, diversity, vertical integration, and

pipelines in mathematics. The AMS is an important partner in addressing these issues, which are foundational for ensuring that our field continues to thrive in perpetuity. For this reason, I would be honored to have your support in my bid to be an AMS Vice President.

Board of Trustees

Photo courtesy of Nick Romanenko

Peter March

Executive Dean of Arts and Sciences, Rutgers University, New Brunswick.

PhD: University of Minnesota, 1983.

AMS Committees: Committee on Science Policy, 2005–2006, 2016–present; Committee on the Profession, 2012–2014; Joint Data Committee, 2012–2014.

Selected Addresses: Conference on Coagulation Models, Germany, 2001; Special Session in Probability, Joint Meeting of the American and the Mexican Mathematical Societies, Mexico, 2005; East African Mathematics Conference and Mathematical Biology Workshop, Kenya, 2006; First Joint International Meeting of the American Mathematical Society and the Sociedad de Matemática de Chile, Chile, 2010.

Additional Information: Director, NSF Division of Mathematical Sciences, 2006–2010; Society for Industrial and Applied Mathematics, Committee on Science Policy, 2013–present; Society for Industrial and Applied Mathematics, Committee on Committees and Appointments, 2014–2016; Chair, US National Committee for Mathematics, Board on International Scientific Organizations, National Academies of Science, 2014–2016.

Selected Publications: 1. with D. Dawson, Resolvent estimates for Fleming-Viot operators and uniqueness of solutions to related martingale problems, *J. Funct. Anal.*, **132** (1995), no. 2, 417–472. **MR1347357 (97a:60105)**; 2. Remarks on scaling a model of Witten-Sander type, *J. Statist. Phys.*, **67** (1992), no. 5–6, 1117–1150. **MR1170086 (93h:82064)**; 3. with A. Etheridge, A note on superprocesses, *Probab. Theor. and Relat. Fields*, **89** (1991), no. 2, 141–147. **MR1110534 (92h:60080)**; 4. with J. Goodman, A. Greenberg and N. Madras, Stability of binary exponential backoff, *J. Assoc. Comput. Mach.*, **35** (1988), no. 3, 579–602. **MR0963162 (90i:68020)**; 5. with P. Hsu, The limiting angle of certain Riemannian Brownian motions, *Comm. Pure Appl. Math.*, **38** (1985), no. 6, 755–768. **MR0812346 (87e:58213)**.

Statement by Candidate: The Board of Trustees is charged to oversee the Society's business affairs and fiscal policy and therefore to ensure the long-term fiscal health and sustainability of the AMS. I am honored to be nominated to this crucially important body and I believe my administrative experience as a dean and as a former division director at the National Science Foundation will be valuable in the Board's deliberations.



Judy L. Walker

Aaron Douglas Professor of Mathematics, University of Nebraska-Lincoln.

PhD: University of Illinois at Urbana-Champaign, 1996.

AMS Offices: Member at Large of the Council, 2006–2009.

AMS Committees: Arnold Ross Lecture Series Committee, 2001–2004; Committee on the Morgan Prize for Outstanding Research in Mathematics by an Undergraduate Student, 2005–2008; ICM06 Travel Grant Selection Committee, 2005; Committee on Science Policy, 2006–2009; Centennial Fellowship Committee, 2010–2012; Programs that Make a Difference Committee, 2013–2016; Department Chairs Workshop Co-Leader, 2014–2016; Committee on Women in Mathematics, 2014–2016.

Selected Addresses: Undergraduate Program Lectures, IAS/PCMI Mentoring Program, Princeton, NJ, 1999; Plenary Lecture, Fall Central Sectional Meeting, Lincoln, NE, 2005; AMS-MAA Invited Address, MathFest, Hartford, CT, 2013; Plenary Lecture, SIAM Conference on Applied Algebraic Geometry, Daejeon, South Korea, 2015; MAA Distinguished Lecture, Washington, DC, 2015.

Additional Information: AMS member since 1990; member of AWM, MAA, SIAM; MAA Project NExT Fellow, 1996–1997; Deborah and Franklin Tepper Haimo Award (MAA), 2006; MAA George Pólya Lecturer, 2009–2011; AMS Fellow 2012; Louise Hay Award (AWM), 2016; Co-founder, All Girls/All Math Program; Co-founder, Nebraska Conference for Undergraduate Women in Mathematics; Organizer of 13 research conferences, including workshops at Dagstuhl and IPAM, and seven AMS Special Sessions; eight PhD students; Chair, MSRI Committee of Academic Sponsors, 2014–; Member, MSRI Board of Trustees, 2014–; Member, TPSE Mathematics Advisory Group, 2016–; numerous AWM and MAA committees.

Selected Publications: 1. Algebraic geometric codes over rings, *J. Pure Appl. Algebra*, **144** (1999), no. 1, 91–110. **MR1723194 (2001k:94075)**; 2. with J. Voloch, Euclidean weights of codes from elliptic curves over rings, *Trans. Amer. Math. Soc.*, **352** (2000), no. 11, 5063–5076. **MR1778505 (2001i:94083)**; 3. with A. Silverberg and J. Staddon, Applications of list decoding to tracing traitors, *IEEE Trans. Inform. Theory*, **49** (2003), no. 5, 1312–1318. **MR1984829 (2004f:94075)**; 4. with R. Koetter, W.-C. Li, and P. Vontobel, Characterizations of pseudo-codewords of (low-density) parity-check codes, *Adv. Math.*, **213** (2007), no. 1, 205–229. **MR2331243 (2008g:94022)**; 5. with C. Curto, V. Itskov, K. Morrison, and Z. Roth, Combinatorial neural codes from a mathematical coding theory perspective, *Neural Comput.*, **25** (2013), no. 7, 1891–1925. **MR3087681**.

Statement by Candidate: Since becoming an AMS member in 1990 as a first-year graduate student, I have developed tremendous respect for the role the Society plays in the mathematics profession. I have been honored to see

some of the inner workings of the Society as a Member at Large of the Council and as a member of various AMS committees. Today's political climate brings uncertainty at all levels, including to individuals, to academic institutions, and to professional societies. The role that the AMS plays in supporting and advocating for mathematics and mathematicians is more important today than ever before. We must broaden our constituency, both in terms of broadening participation in the mathematics profession and in terms of increasing the membership of the AMS, especially among those new to the profession and among members of underrepresented groups. The primary role of the Board of Trustees is to conduct the business affairs of the AMS. If elected, I look forward to working with my fellow Trustees to secure the long-term financial health of our Society so that it can continue to provide essential support to mathematicians and mathematics.

Member at Large



Erika T. Camacho

Associate Professor, Arizona State University.

PhD: Cornell University, 2003.

AMS Committees: AMS-MAA MathFest Joint Lecture Committee, 2015–2016 (Chair, 2016); AMS Young Scholars Awards Committee, 2016–2019.

Selected Addresses: Plenary Speaker, MAA MathFest, Portland, OR, 2014; Keynote Address,

The Dorothy Wrinch Lecture in Biomathematics, Women in Math in New England (WIMIN) Conference, Smith College, 2014; Keynote Address, Infinite Possibilities Conference, Oregon State University, 2015; Keynote Address, AAC&U STEM Conference, Seattle, WA, 2015; Keynote Address, Annual Conference of the Great Lakes Section of SIAM, Grand Rapids, MI, 2015.

Additional Information: The Institute for Advanced Study/Park City Math Institute (PCMI) Diversity Committee, 2007–2017; AWM Nominating Committee, 2017; SIAM Diversity Committee, 2008–2011; National Hispanic Women's Corporation Latina Leadership Award, 2011; Society for the Advancement of Chicanos/Hispanics and Native Americans in Science (SACNAS) Distinguished Undergraduate Institution Mentor Award, 2012; National Institute for Mathematical and Biological Synthesis (NIMBioS) Advisory Board, 2012–2015; Dr. Martin Luther King Jr. Visiting Assistant Professor, Department of Mathematics, MIT, 2013–2014; Associate Editor, SIAM Undergraduate Research Online (SIURO), 2014–present; SACNAS Board of Directors, 2016–present; Associate Editor, *Bulletin of Mathematical Biology*, 2016–present.

Selected Publications: 1. with S. Wirkus, Tracing the progression of retinitis pigmentosa via photoreceptor interactions, *J. Theoret. Biol.*, **317** (2013), 105–118; 2. with K. Dahlquist, B. Fitzpatrick, S. Entzminger and N. Wanner, Parameter estimation for gene regulatory networks from microarray data: cold shock response in *Saccharomyces*

cerevisiae, *Bull. Math. Biol.*, **77** (2015), no. 8, 1457–1492. **MR3421968**; 3. with A. Radulescu and S. Wirkus, Bifurcation analysis of a photoreceptor interaction model for retinitis pigmentosa, *Commun. Nonlinear Sci. Numer. Simul.*, **38** (2016), 267–276. **MR3480473**; 4. with T. Leveillard, J.-A. Sahel and S. Wirkus, Mathematical model of the role of RdCVF in the coexistence of rods and cones in a healthy eye, *Bull. Math. Biol.*, **78** (2016), no. 7, 1394–1409. **MR3539546**; 5. with C. Punzo and S. Wirkus, Quantifying the metabolic contribution to photoreceptor death in retinitis pigmentosa via a mathematical model, *J. Theoret. Biol.*, **408** (2016), 75–87.

Statement by Candidate: I am humbled and honored to have been nominated to run for the position of Member at Large of the AMS Council. In recent months, science, a quality education for all, and appreciation of diversity has been under fire. It is only through education and tapping into the resources that our country currently possesses that we can hope to ensure our country proceeds down the best possible path. AMS, as a premier organization that embraces and promotes both excellence in science and in education, will be key in ensuring the scientific vitality and growth of our country. As a Member at Large, I will bring a wealth of experience in this matter, and I will continue to strive to increase the diversity and opportunities available to all, with our Society standing as an example and a leader of such efforts within STEM.



Photo courtesy of John Etnyre

John Etnyre

Professor, Georgia Institute of Technology.

PhD: University of Texas, Austin, 1996.

AMS Committees: Southeastern Section Program Committee, 2009–2011 (Chair, 2010–2011).

Selected Addresses: Invited Address, AMS Sectional Meeting, Courant Institute, 2003; Graduate Course Lecturer, Park City Mathematics Institute, 2006; 30th William J. Spencer Lecture, Kansas State University, 2008; Speaker, Perspectives in Analysis, Geometry and Topology, Stockholm University, Sweden, 2008; Principle Speaker, 41st Annual Spring Lecture Series, University of Arkansas, 2016.

Additional Information: Co-organizer, Semester-long program, AIM, Low Dimensional Contact Geometry, 2000; Managing Editor, *Algebraic and Geometric Topology*, 2007–present; Co-organizer, MSRI Yearlong program, Contact and Symplectic Geometry and Topology, 2009–2010; Fellow, AMS, 2012; Simons Fellows, 2015–2016.

Selected Publications: 1. with K. Honda, Cabling and transverse simplicity, *Ann. of Math.* (2) **162** (2005), no. 3, 1305–1333. **MR2179731 (2006j:57051)**; 2. with R. Komendarczyk and P. Massot, Tightness in contact metric 3-manifolds, *Invent. Math.*, **188** (2012), no. 3, 621–657. **MR2917179**; 3. with T. Ekholm, L. Ng and M. G. Sullivan, Knot contact homology, *Geom. Topol.*, **17** (2013), no. 2, 975–1112. **MR3070519**; 4. with J. Baldwin, Admissible

transverse surgery does not preserve tightness, *Math. Ann.*, **357** (2013), no. 2, 441–468. **MR3096514**; 5. with D. Shea Vela-Vick and R. Zarev, Sutured Floer homology and invariants of Legendrian and transverse knots, to appear, *Geom. Topol.*

Statement by Candidate: The AMS plays a central role in charting the future of mathematical research and education. Its wide-ranging activities have been quite influential in my own career, and I am excited about the prospect of helping to guide the AMS in the future as a Member at Large of the AMS Council. A few key challenges for the mathematical community include: communicating to the public the beauty of mathematics and the fundamental place of mathematics in the modern world; advocating for appropriate resources for research and innovation in teaching; diversifying, in a broad sense, the mathematical community; and improving the teaching of mathematics at all levels by exploring new methods, especially in regards to the use of technology and interactions between people at various places in the educational process. If elected, I look forward to engaging the mathematical community on these issues and others.



Photo courtesy of UConn Health Photo/Lanny Niggler

Reinhard Laubenbacher

Director, Center for Quantitative Medicine, University of Connecticut School of Medicine, and Professor of Computational Biology, Jackson Laboratory for Genomic Medicine.

PhD: Northwestern University, 1985.

AMS Committees: Liaison Committee with AAAS, 2017.

Selected Addresses: Plenary Address, International Symposium on Symbolic and Algebraic Computation (ISSAC), Philadelphia, 2003; Invited Talk, IHES, Paris, 2008; Plenary Address, 15th International Conference, DNA Computing and Molecular Programming, Fayetteville, AR, 2009; Invited AMS Address, Raleigh, NC, 2009; Plenary Address, 17th International Conference, Conferences on Applications of Computer Algebra (ACA), Houston, TX, 2011.

Additional Information: Co-organizer and co-principal lecturer, MSRI Graduate Summer Workshop, Mathematical Methods in Computational Biology, 2006; Organizer, AMS Short Course, Mathematical Methods in Computational Biology, AMS-MAA-SIAM Joint Meetings, San Antonio, 2006; Program Leader, Program on Algebraic Methods in Systems Biology and Statistics, Statistical and Applied Mathematical Sciences Institute, Research Triangle Park, NC, 2008–2009; VP for Science Policy, SIAM, 2009–2013; Expert Witness, Congressional Hearing on 21st Century Biology, Subcommittee on Research and Education of the House Committee on Science and Technology, 2010; Member, Scientific Advisory Committee, Mathematical Biosciences Institute, Ohio State University, 2011–2013; Fellow, AMS, 2012; Fellow, AAAS, 2015; Co-editor in chief,

Bulletin of Mathematical Biology; Member, Editorial Board, *J. Algebra*, *J. Symb. Comp.*, *BMC Syst. Biol.*

Selected Publications: 1. with M. Kolster, On higher class groups of orders, *Math. Z.*, **228** (1998), no. 2, 229–246. **MR1630559 (99i:19002)**; 2. with D. Pengelley, Mathematical expeditions: Chronicles by the explorers, Undergraduate Texts in Mathematics. Readings in Mathematics, Springer-Verlag, New York, 1999. **MR1662147 (99i:01005)**; 3. with E. Babson, H. Barcelo and M. de Longueville, Homotopy theory of graphs, *J. Algebraic Combin.*, **24** (2006), no. 1, 31–44. **MR2245779 (2007d:05156)**; 4. with B. Sturmfels, Computer algebra in systems biology, *Amer. Math. Monthly*, **116** (2009), no. 10, 882–891. **MR2589218 (2011d:92004)**; 5. with G. An, B. G. Fitzpatrick, S. Christley, P. Federico, A. Kanarek, R. Miller Neilan, M. Oremland, R. Salinas, Lenhart, S.; Optimization and Control of Agent-Based Models in Biology: A Perspective. *Bull. Math. Biol.* **79** (2017), no. 1, 63–87. **MR3591422**.

Statement by Candidate: At no time in history have the mathematical sciences occupied such a central role in society, leading to ever-growing professional opportunities for mathematicians. The AMS plays a very important role in highlighting the contributions of the mathematics community. It helps assure that we have the resources and the mechanisms in place to continue the basic and applied research that has served society so well in the past, and to appropriately train the next generations of researchers, educators, and professionals from a wide range of diverse backgrounds. If elected as a Member at Large of the AMS Council, I will contribute my experience in basic and applied research to help the Society meet these challenges. Important areas of focus for me include undergraduate and graduate education, research funding, and outreach to other STEM communities and to the general public.



Photo courtesy of Victor Reiner

Victor Reiner

Professor, University of Minnesota.

PhD: MIT, 1990.

AMS Committees: AMS Central Section Committee 2013–2015; Robbins Prize Committee, 2015–2018.

Selected Addresses: Plenary address, JMM, New Orleans, 2007; Plenary talk series, Séminaire Lotharingien de Combinatoire,

Germany, 2009; Max and Rose Lorie Lecture Series, George Mason University, 2010; Plenary address, Canadian Discrete and Algorithmic Mathematics Conference (CanADAM), Newfoundland, 2013; Aisenstadt Chair Lecture Series, CRM, Université de Montréal, 2017.

Additional Information: NSF Postdoc Fellow, 1992–1995; Sloan Fellow, 1996–1998, University of Minnesota Distinguished McKnight Professor, 2003; Fellow, AMS, 2012.

Selected Publications: 1. Non-crossing partitions for classical reflection groups, *Discrete Math.*, **177** (1997), no. 1–3, 195–222. **MR1483446 (99f:06005)**; 2. with J. Eagon, Resolutions of Stanley-Reisner rings and Alexander du-

ality, *J. Pure Appl. Algebra*, **130** (1998), no. 3, 265–275. **MR1633767 (99h:13017)**; 3. with D. Stanton and D. White, The cyclic sieving phenomenon, *J. Comb. Theory A*, **108** (2004), no. 1, 17–50. **MR2087303 (2005g:05014)**; 4. with A. Broer, L. Smith and P. Webb, Extending the coinvariant theorems of Chevalley, Shephard-Todd, Mitchell, and Springer, *Proc. Lond. Math. Soc.* (3) **103** (2011), no. 5, 747–785. **MR2852288 (2012k:13017)**; 5. with D. Armstrong and B. Rhoades, Parking spaces, *Adv. Math.*, **269** (2015), 647–706. **MR3281144**.

Statement by Candidate: I am honored to be nominated for this position. The AMS serves an important role in shaping the future of mathematics, and I see at least two places where it could play a larger role. One is in facilitating the creation of top-quality journals owned and operated by mathematicians, not commercial publishers. The other is in exploring whether it is feasible (and desirable) to use stable matching algorithms in various math job markets, such as summer math REU positions, or even math postdoc positions.



Photo courtesy of Brooke Shipley

Brooke Shipley

Professor and Head, Department of Mathematics, Statistics, and Computer Science, University of Illinois at Chicago.

PhD: Massachusetts Institute of Technology, 1995.

AMS Committees: AMS Committee on Academic Freedom, Tenure, and Employment Security, 2003–2006; AMS Joint Summer Research Conferences Committee,

2004–2007; Editorial board, *Proceedings of the American Mathematical Society*, 2009–2013; AMS Simons Travel Grant Review Panel, 2013–2016.

Selected Addresses: Invited Address, AMS Sectional Meeting, Boulder, CO, 2003; Wolfson Lecture Series, Manchester, England, 2006; Lecture Series, Workshop on Algebraic Topology, MSRI, 2013; Plenary speaker, Nebraska Conference for Undergraduate Women in Mathematics, Lincoln, NE, 2017; Lecture series, Young Topologists Meeting, Stockholm, Sweden, 2017.

Additional Information: NSF Postdoctoral Research Fellow, 1995; NSF Career Award, 2002; Sloan Research Fellow, 2002; AWM Noether Lecture Selection Committee, 2009–2012; NSF ADVANCE co-PI, UIC, Women in Science and Engineering System Transformation (WISEST), 2009–2012; Interim Director, WISEST, 2012–2013; AWM Committee on Committees, 2013–2016; ELATE Fellow, Drexel University, 2014–2015; AMS Fellow, 2015; Executive Advisory Board, Department of Education HSI-STEM program, UIC Latin@s Gaining Access to Networks for Advancement in Science (L@S GANAS), 2017.

Selected Publications: 1. with M. Hovey and J. Smith, Symmetric spectra, *J. Amer. Math. Soc.*, **13** (2000), no. 1, 149–208. **MR1695653 (2000h:55016)**; 2. with D. Dugger, K-theory and derived equivalences, *Duke Math. J.*, **124** (2004), no. 3, 587–617. **MR2085176 (2005e:19005)**;

3. $H\mathbb{Z}$ -algebra spectra are differential graded algebras, *Amer. J. Math.*, **129** (2007), no. 2, 351–379. **MR2306038 (2008b:55015)**; 4. with K. Hess, Waldhausen K-theory of spaces via comodules, *Adv. Math.*, **290** (2016), 1079–1137. **MR3451948**; 5. with K. Hess, M. Kedziorek, and E. Riehl, A necessary and sufficient condition for induced model categories, *J. Topol.*, **10** (2017), no. 2, 324–369.

Statement by Candidate: The AMS provides a key leadership role in addressing opportunities and challenges facing our profession. Crucial challenges include the decreasing support for fundamental research and tenure-track faculty, and the associated difficult academic job market. Significant opportunities include promoting evidence-based curricular and pedagogical practices, welcoming and developing mathematical talent from diverse populations, and increasing ties among mathematicians in academia with those in industry and related fields. If elected, I would welcome the opportunity to bring to the AMS Council my experience working on these and other issues as head of a department that encompasses pure and applied mathematics, statistics, mathematical computer science, and mathematical education at one of the most diverse research universities in the country.



Photo courtesy of Bryce Vickmark

Gigliola Staffilani

Abby Rockefeller Mauzé Professor of Mathematics, MIT.

PhD: University of Chicago, 1995.

AMS Committees: Committee for National Meetings, 2009–2011; Editorial Board Member of the Graduate Studies in Mathematics, 2010–present.

Selected Addresses: Invited Address, AMS Regional Meeting, Irvine, 2001; Invited Address,

British Mathematics Colloquium and British Applied Mathematical Colloquium, Edinburgh, 2010; Invited Address, SIAM Annual Meeting, Pittsburgh, 2010; Current Event Bulletin Speaker, Boston, 2012; Invited AMS-EMS-SPM Address, Porto, Portugal, 2015; Invited AMS Address, JMM, Atlanta, 2017.

Additional Information: The Harold M. Bacon Memorial Teaching Award, Stanford University, 1997; Frederick Emmons Terman Engineering Scholastic Award, Stanford University, 1998; Alfred P. Sloan Research Fellowship, 2000; Elizabeth S. and Richard M. Cashin Fellow of the Radcliffe Institute for Advanced Study, Harvard University, 2009–2010; Member and co-chair, MSRI Scientific Advisory Committee (SAC), 2011–2016; AMS Fellow, 2013; Member, Massachusetts Academy of Sciences, 2013; Member, American Academy of Arts and Sciences, 2014; Member, Scientific Research Board of AIM, 2016–2019. MIT Mathematics Department positions: Member, Pure Mathematics Committee, 2003–present; Graduate Co-chair, 2006–2012; Associate Head, 2013–2015; Chair, Diversity Advisory Committee, 2016–present. Current Non-AMS Editorial Boards: *Bollettino dell'Unione Matematica Italiana (BUMI)*, *IJM*, *Selecta Mathematica*, *SIAM Journal on Mathematical*

Analysis (SIMA), “Stochastics and Partial Differential Equations: Analysis and Computations. Teaching Initiatives”: Co-designer, online single variable calculus class offered on MITx, 2015–2016.

Selected Publications: 1. with V. Sohinger, Randomization and the Gross–Pitaevskii hierarchy, *Arch. Ration. Mech. Anal.*, **218** (2015), no. 1, 417–485. **MR3360742**; 2. with A. Nahmod, T. Oh and L. Rey-Bellet, Invariant weighted Wiener measures and almost sure global well-posedness for the periodic derivative NLS, *J. Eur. Math. Soc. (JEMS)*, **14** (2012), no. 4, 1275–1330. **MR2928851**; 3. with K. Kirkpatrick and B. Schlein, Derivation of the two-dimensional nonlinear Schrödinger equation from many body quantum dynamics, *Amer. J. Math.*, **133** (2011), no. 1, 91–130. **MR2752936 (2012f:81079)**; 4. with J. Colliander, M. Keel, H. Takaoka, and T. Tao, Transfer of energy to high frequencies in the cubic defocusing nonlinear Schrödinger equation, *Invent. Math.*, **181** (2010), no. 1, 39–113. **MR2651381 (2011f:35320)**; 5. with J. Colliander, M. Keel, H. Takaoka and T. Tao, Global well-posedness and scattering for the energy-critical nonlinear Schrödinger equation in \mathbb{R}^3 , *Ann. of Math. (2)* **167** (2008), no. 3, 767–865. **MR2415387 (2009f:35315)**.

Statement by Candidate: I am honored to have been nominated to run for Member at Large of the Council of the American Mathematical Society. As a teacher, a researcher, a mentor, and an advisor I learned that mathematical ability is independent of ethnicity, gender, age, sexual preference, political creed, or socio-economic background. Mathematical ability can be found anywhere, and mathematical thinking benefits everyone. I value greatly two concepts that I believe need to be embraced by the mathematical community now, more than ever: Diversity (in its most general sense) and Outreach. The image of the white male mathematician secluded in his ivory tower is outdated and restrictive. Diversity, collegiality, and instantaneous communication have changed, for the better, the way we do mathematics. In going forward in this positive evolution we have to continue to be more inclusive, while maintaining the highest standards of our discipline, and we have to communicate to the rest of the world that the old stereotypes are no longer valid. If elected as a Member at Large of the Council of the AMS I will bring with me this message, and I hope that my work will not just benefit our mathematical community but that it will help make more popular the value of analytic thinking and evidence-based arguments.



Photo courtesy of Eitan Tadmor

Eitan Tadmor

Distinguished University Professor, University of Maryland, College Park.

PhD: Tel Aviv University, 1979.

AMS Committees: Chair, Editorial Board, AMS book series Proceedings of Symposia in Applied Mathematics, 2005–2011; AMS representative, US National Committee on Theoretical and

Applied Mechanics (USNC/TAM), 2012–2016; AMS Program Committee for National Meetings, 2015–2018.

Selected Addresses: ICM Invited Lecture, Beijing, 2002; Plenary Speaker, Analysis of PDEs, SIAM, Boston, 2006; AMS Invited Address, Ames IA, 2013; Invited Address, JMM, Baltimore, 2014; Keynote Speaker, Leçons Jacques-Louis Lions, Paris, 2016.

Additional Information: Chair, Department of Applied Mathematics, Tel Aviv University, 1991–1993; Founding Co-director, Institute for Pure and Applied Mathematics (IPAM), UCLA, 2001–2002; Scientific Advisory Board, European HYKE Network, 2002–2005; Board of Governors, IMA, Minneapolis, 2002–2007; Co-chair, International meetings on hyperbolic problems, CalTech 2002, University of Maryland 2008; Director, Center for Scientific Computation and Mathematical Modeling (CSCAMM), University of Maryland, 2002–2016; Core panel member, section on Numerical Analysis, ICM, Madrid, 2006; AMS Fellow, 2012; Director, NSF Research Network, Ki-Net, 2012–2018; SIAM-ETHZ Peter Henrici Prize, 2015; Senior Fellow, ETH-Institute for Theoretical Studies, Zurich, 2016–2017. Editorial Boards: *SIAM J. Math. Analysis*, 2004–present, *J. FoCM*, 2004–present, *Acta Numerica*, 2008–present;

Selected Publications: 1. with P.-L. Lions and B. Perthame, A kinetic formulation of multidimensional scalar conservation laws and related equations, *J. Amer. Math. Soc.*, 7 (1994), no. 1, 169–191. **MR1201239 (94d:35100)**; 2. Entropy stability theory for difference approximations of nonlinear conservation laws and related time dependent problems, *Acta Numer.*, 12 (2003), 451–512. **MR2249160 (2007g:35150)**; 3. with T. Tao, Velocity averaging, kinetic formulations, and regularizing effects in quasi-linear PDEs, *Comm. Pure Appl. Math.*, 60 (2007), no. 10, 1488–1521. **MR2342955 (2008g:35011)**; 4. with S. Motsch, A new model for self-organized dynamics and its flocking behavior, *J. Stat. Phys.*, 144 (2011), no. 5, 923–947. **MR2836613 (2012j:92140)**; 5. with U. Fjordholm and S. Mishra, ENO reconstruction and ENO interpolation are stable, *Found. Comput. Math.*, 13 (2013), no. 2, 139–159. **MR3032678**.

Statement by Candidate: The AMS platform brings together those with keen interests in reconnecting existing knowledge with newly created mathematics. At the same time, as the premier professional association of mathematicians in the US, the AMS is an effective ambassador of our profession. Among its main objectives, the AMS aims at advancing mathematical research, enabling collaborations, fostering education of the next generation of mathematicians, amplifying the visibility of the fundamental role played by mathematics, and providing strong advocacy for its continued support. My experience, as a founding Co-director of IPAM at UCLA and as CSCAMM Director at the University of Maryland, has shown me the indispensable role of such platforms for promoting our profession, spoken in the one language of Mathematics with its many dialects. It will be an honor to serve as Member at Large of the AMS Council and take an active part in promoting these objectives.



Photo courtesy of Chad M. Topaz

Chad M. Topaz

Professor of Mathematics, Williams College.

PhD: Northwestern University, 2002.

AMS Committees: Committee on Human Rights of Mathematicians, 2016–2018; Committee on Women in Mathematics, 2017–2020 (Chair, 2017–2018).

Selected Addresses: Invited Address, National Academy of

Sciences Kavli Frontiers of Science Chinese-American Symposium, 2012; Invited Talk, Joint US-Japan Conference on Localized Patterns in Dissipative Systems, Institute for Mathematics and its Applications, 2013; Invited Talk, Coherent Structures in PDEs and their Applications, Banff International Research Station Oaxaca, 2016; Invited Talk, Contextualizing Mathematics in Undergraduate Courses, JMM, 2017; Public Lecture, Canadian Applied and Industrial Mathematics Society Annual Meeting, 2017.

Additional Information: Selected awards: Robert H. Sorgenfrey Distinguished Teaching Award, Dept. of Mathematics, UCLA, 2004; New Directions Research Professor, Institute for Mathematics and its Applications, 2009–2010; Jack and Marty Rossmann Excellence in Teaching Award, Macalester College, 2010; Kavli Frontiers of Science Fellow, 2012; Outstanding Paper Award, Society for Industrial and Applied Mathematics, 2013. Editorial positions: Associate Editor, *SIAM Review*, 2011–2016; Associate Editor, *SIAM Undergraduate Research Online*, 2015–2017. Conference/session organization: Co-organizer of 16 sessions, workshops, and meetings including the Institute for Pure and Applied Mathematics, SIAM Conference on Applications of Dynamical Systems, SIAM Annual Meeting, Mathematical Biosciences Institute, International Congress on Industrial and Applied Mathematics, AMS Sectional Meetings, and the National Academy of Sciences.

Selected Publications: 1. with A. Bertozzi, Swarming patterns in a two-dimensional kinematic model for biological groups, *SIAM J. Appl. Math.*, 65 (2004), no. 1, 152–174. **MR2111591 (2005h:92031)**; 2. with A. Bertozzi and M. Lewis, A nonlocal continuum model for biological aggregation, *Bull. Math. Biol.*, 68 (2006), no. 7, 1601–1623. **MR2257718 (2007e:92077)**; 3. with A. Bernoff, Nonlocal aggregation models: a primer of swarm equilibria, *SIAM Rev.*, 55 (2013), no. 4, 709–747. **MR3124884**; 4. with L. Ziegelmeier and T. Halverson, Topological data analysis of biological aggregation models, *PLOS One* 10 (2015), no. 5, e0126383; 5. with S. Sen, Gender representation on journal editorial boards in the mathematical sciences, *PLOS One* 11 (2016), no. 8, e0161357.

Statement by Candidate: I am honored to be nominated for Member at Large of the Council of the AMS. The mission of the AMS includes promoting research, strengthening education, and fostering connections to other disciplines. As a research-active applied mathematician at a liberal arts college, my professional life is centered around these same goals. If elected, I will enthusiastically

bring my experience to the Council in order to support vibrant conferences, journals, and Mathematical Research Communities; teaching initiatives built on modern understanding of peer-reviewed scientific literature on human learning and education policy; and joint initiatives that build bridges between mathematics and other fields. Finally, I will work unceasingly for a diverse and inclusive mathematical community. In order for our field to be its best, we must tear down barriers to participation at every level of the profession.



Photo courtesy of Joseph Rahmoff

Anthony Várilly-Alvarado

Associate Professor, Rice University.

PhD: University of California, Berkeley, 2009.

Selected Addresses: Invited Address, Western Algebraic Geometry Symposium (WAGS), Palo Alto, CA; 2010; Colloquium Lecture, Colóquio de Geometria e Aritmética, Instituto Nacional de Matemática Pura e Aplicada

(IMPA), Rio de Janeiro, 2013; Invited Lecture Series, Arizona Winter School on Arithmetic of higher-dimensional varieties, Tucson, AZ, 2015; Invited Speaker, AMS Summer Institute in Algebraic Geometry, Salt Lake City, UT, 2015; Invited Lecture Series, Positivity in Arithmetic and Geometry, Université Paris-Sud, Orsay, 2017.

Additional Information: NSF CAREER Award, 2014; Founder and Director, Patterns, Math and You (two-week summer outreach program for middle school students in the Houston Independent School District), 2015–present; Distinguished Visitor, Pacific Institute for the Mathematical Sciences (PIMS), 2016; George R. Brown Award for Superior Teaching, Rice University, 2016 (university-wide award); MSRI Human Resources Advisory Committee, 2017–2020.

Selected Publications: 1. with D. Testa and M. Velasco, Big rational surfaces, *Math. Ann.*, **351** (2011), no. 1, 95–107. **MR2824848**; 2. with B. Hassett and P. Varilly, Transcendental obstructions to weak approximation on general K3 surfaces, *Adv. Math.*, **228** (2011), no. 3, 1377–1404. **MR2824558 (2012i:14025)**; 3. with B. Viray, Arithmetic of del Pezzo surfaces of degree 4 and vertical Brauer groups, *Adv. Math.*, **255** (2014), 153–181. **MR3167480**; 4. with D. Abramovich, Level structures on abelian varieties and Vojta's conjecture, *Compos. Math.*, **153** (2017), 373–394; 5. with S. Tanimoto, Kodaira dimension of moduli of special cubic fourfolds, *J. Reine Angew. Math.*, to appear. DOI: 10.1515/crelle-2016-0053.

Statement by Candidate: The AMS represents a large community of mathematicians to the public at large; it is important that its actions and statements reflect the values of its members. I would like to see the AMS continue to expand its efforts to bring together mathematicians for research and collaborative engagements, to encourage inclusivity and diversity at all levels of mathematical inquiry, and to engage with the general public and with

government agencies (an especially important activity in the current difficult political and funding climate). I would also like to see the AMS strengthen its ties to other mathematical societies around the world.

I view my relative youth as a candidate and my Latin American upbringing as strengths that will help me represent a younger, more diverse generation of mathematicians at the AMS Council. I am honored to be nominated for this position and thus have the opportunity to further and to help shape the mission of the AMS.



Photo courtesy of Guofang Wei

Guofang Wei

Professor of Mathematics, University of California, Santa Barbara.

PhD: SUNY Stony Brook, 1989.

AMS Committees: Editor, *Proceedings of the American Mathematical Society*, 2014–present.

Selected Addresses: Invited Lectures, 11th and 24th Geometry Festival, 1996, 2009; Invited

Lectures, 16th and 23rd Southern California Geometric Analysis Seminar, 2009, 2016; Plenary Lecture, AMS Fall Sectional Meeting, University of Arizona, 2012.

Additional Information: Fellow of the AMS; Alfred P. Sloan Doctoral Dissertation Fellow, 1988–1989; Eisenbud professor, MSRI, Spring 2016; Changjiang Scholar, Ministry of Education, China and Li Ka Shing Foundation, 2015–2018.

Selected Publications: 1. Examples of complete manifolds of positive Ricci curvature with nilpotent isometry groups, *Bull. Amer. Math. Soc. (N.S.)* **19** (1988), no. 1, 311–313. **MR0940494 (89h:53101)**; 2. with P. Petersen, Relative volume comparison with integral curvature bounds, *Geom. Funct. Anal.*, **7** (1997), no. 6, 1031–1045. **MR1487753 (99c:53023)**; 3. with C. Sormani, Hausdorff convergence and universal covers, *Trans. Amer. Math. Soc.*, **353** (2001), no. 9, 3585–3602. **MR1837249 (2002e:53057)**; 4. with X. Dai and X. Wang, On the stability of Riemannian manifold with parallel spinors, *Invent. Math.*, **161** (2005), no. 1, 151–176. **MR2178660 (2006h:53041)**; 5. with W. Wylie, Comparison geometry for the Bakry-Emery Ricci tensor, *J. Differential Geom.*, **83** (2009), no. 2, 377–405. **MR2577473 (2011a:53064)**.

Statement by Candidate: I am honored to be nominated for election as a Member at Large of the AMS Council. AMS plays a critical role in advocacy for the mathematical community, stimulating international and disciplinary interactions, and promoting women and under-represented minority participation. If elected, I will contribute my efforts and experience toward serving these goals, and toward encouraging, recognizing and, celebrating outstanding contributions to the mathematical sciences.

Nominating Committee

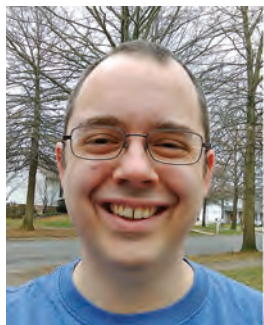


Photo courtesy of Benjamin Braun

Benjamin Braun

Associate Professor of Mathematics, Wimberly and Betty Royster Research Professor, University of Kentucky.

PhD: Washington University, 2007.

AMS Committees: Committee on Education, 2014–2017.

Selected Addresses: Ulam Centennial Conference, University of Florida, 2009; Workshop on

Convex Polytopes, Kyoto, Japan, 2012; Workshop on Geometric Combinatorics, Institute for Mathematics and its Applications, 2014; Midwest Combinatorics Conference, University of Minnesota, 2015; AMS Special Session, JMM, 2016.

Additional Information: Co-director, Central Kentucky Mathematics Circles, 2010–present; Member, Steering Committee, MAA *Instructional Practices Guide*, 2016–present; Editor-in-Chief, AMS blog *On Teaching and Learning Mathematics*, 2014–present; Editorial Board member, *Notices of the AMS*, 2016–present; Chair of writing team, CBMS Statement on Active Learning, 2016; Research Member, MSRI, Fall 2017.

Selected Publications: 1. Norm bounds for Ehrhart polynomial roots, *Discrete Comput. Geom.*, **39** (2008), no. 1–3, 191–193. **MR2383758 (2009d:52019)**; 2. with J. Browder and S. Klee, Cellular resolutions of ideals defined by non-degenerate simplicial homomorphisms, *Israel J. Math.*, **196** (2013), no. 1, 321–344. **MR3096594**; 3. with M. Beck, Euler–Mahonian statistics via polyhedral geometry, *Adv. Math.*, **244** (2013), 925–954. **MR3077893**; 4. with M. Beck, M. Köppe, C. Savage, and Z. Zafeirakopoulos, s -Lecture hall partitions, self-reciprocal polynomials, and Gorenstein cones, *Ramanujan J.*, **36** (2015), no. 1–2, 123–147. **MR3296715**; 5. Unimodality problems in Ehrhart theory, Recent trends in combinatorics, 687–711, *IMA Vol. Math. Appl.*, **159**, Springer (2016). **MR3526428**.

Statement by Candidate: I am honored to be considered for election to the Nominating Committee. I look forward to assisting with the important task of identifying candidates for leadership positions within the AMS. Through my work with the AMS Committee on Education and the Conference Board of the Mathematical Sciences, it has become clear to me that the mathematical community is strongest when we recognize and value the many different types of contributions mathematicians make to our community. I will take seriously the responsibility of the Nominating Committee to select a diverse group of candidates who represent mathematicians from a broad range of backgrounds, experiences, and institutions.



Photo courtesy of Melissa Torman

Tara S. Holm

Professor of Mathematics, Cornell University.

PhD: MIT, 2002.

AMS Offices: Council, 2011–2017; Executive Committee, 2013–2017

AMS Committees: Committee on Education, 2011–2017; Committee on Committees, 2013–2015; Committee to Review the Com-

mittee on Education, 2017–2018.

Selected Addresses: Plenary Address, AMS Eastern Sectional Meeting, New Brunswick, NJ, 2007; Martha Davenport Heard Lecture, Wellesley College, Wellesley, MA, 2011; Oliver Smithies Lecture, Oxford, UK, 2014; Kitao Lecture, Swarthmore College, Swarthmore, PA, 2014; AMS-MAA Invited Address, MathFest, Columbus, OH, 2016.

Additional Information: NSF Postdoctoral Fellow, 2002; Fellow, AMS, 2013; Simons Fellow, 2013; von Neumann Fellow, Institute for Advanced Study, 2014; Oliver Smithies Lecturer and Visiting Fellow, Balliol College, Oxford, UK, 2014; Member, Board of Governors of Transforming Post-Secondary Education in Mathematics (TPSE Math tpsemath.org/); Member, MAA and AWM; President/CEO, Pro Mathematica Arte, the non-profit corporation which runs the Budapest Semesters in Mathematics and the Budapest Semesters in Mathematics Education.

Selected Publications: 1. with Y. Karshon, The Morse–Bott–Kirwan condition is local, *Res. Math. Sci.*, **3** (2016), Paper no. 25. **MR3579296**; 2. with A. Pires, The topology of toric origami manifolds, *Math. Res. Lett.*, **20** (2013), no. 5, 885–906. **MR3207359** 3. Act globally, compute locally: group actions, fixed points, and localization, Toric topology, 179–195, *Contemp. Math.*, **460**, Amer. Math. Soc., Providence, RI, 2008. **MR2428355 (2009h:53191)**; 4. with R. Goldin and A. Knutson, Orbifold cohomology of torus quotients, *Duke Math. J.*, **139** (2007), no. 1, 89–139. **MR2322677 (2008h:53144)**; 5. with J-C Hausmann and V. Puppe, Conjugation spaces, *Algebr. Geom. Topol.*, **5** (2005), 923–964. **MR2171799 (2006e:55008)**.

Statement by Candidate: It is an honor to be nominated to stand for election to the Nominating Committee. I deeply believe in the AMS mission of promoting mathematics research, strengthening mathematics education, and creating a supportive environment for all mathematicians. Through my work with the AMS Committee on Education and TPSE Math, I have met numerous mathematics colleagues across the nation. If elected to the Nominating Committee, I will use this network to identify a wide range of leaders who can represent the breadth and diversity of the mathematics community.

**Linda Ness**

Visiting Scholar, Rutgers, DIMACS.

PhD: Harvard, 1975.

AMS Committees: Member at Large of the Council, 1987–1989.

Selected Addresses: Invited talks on my research in moment maps, the Institute for Advanced Studies, approx. 1984; Industrial Problems Seminar, Institute for Mathematics and its Applica-

tions, Fast Multiscale Algorithms for Representation and Analysis of Data and Potential Applications, University of Minnesota, 2011; ICERM workshop, Mathematics of Data Analysis in Cybersecurity, Multiscale Representation of High Dimensional Data, Brown University, 2014; ICERM workshop, Mathematics in Data Science, Product Formalisms for Measures on Spaces with Binary Tree Structures-Representation, Visualization, Inference, Decision and Application, Brown University, 2015; Women's Intellectual Network Research Symposium, The Product Formula Representation for Measures on Dyadic Sets and Applications to Data, (tutorial), Brown University, 2017.

Additional Information: St. Olaf College Undergraduate, 1965–1969; National Science Foundation Fellowship, 1969–1972; Harvard Ph.D. Student, 1969–1975; Assistant Professor, University of Washington, 1975–1983; Radcliffe Bunting Institute Fellowship, 1980; Visiting Associate Professor, Mathematics, University of Pennsylvania, 1983–1984; Associate Professor, Mathematics, Carlton College, 1984–1987 (on leave 1986–1987); MCC Fellowship, University of Texas Computer Science Department, 1986–1987; Master's in Computer Science, 1987; Bellcore Applied Research (later known as Telcordia and Applied Communication Sciences), roles included Chief Research Scientist and Program Manager of the Tactical Research Technology Transition Program to the Products and Services Groups, 1987–2015; National Academies Panels at the Army Research Laboratory: Digitization and Commerce, 2012; Information Science, 2014–2015; Visiting Scholar, Rutgers DIMACS Center, 2015–2017; Computational Sciences, 2017. Advisory Board: Association for Women in Mathematics, 2013–present; Women and Mathematics Program at the Institute for Advanced Studies, 2015–present. Chair, Organizing Committee: Workshop on "Mathematics in Data Science," ICERM (the NSF Institute for Computational and Experimental Research in Mathematics), 2015 and WiSDM Workshop (Women in Science of Data and Mathematics Research Collaboration Workshop), ICERM, 2017.

Selected Publications: 1. with G. Kempf, The length of vectors in representation spaces, *Proceedings of the Copenhagen Summer Meeting in Algebraic Geometry*, Springer Lecture Notes, **732** (1979), 233–244. **MR0555701 (81i:14032)**; 2. A stratification of the null cone via the moment map, *Amer. J. Math.*, **106** (1984) no. 6, 1281–1329 (Appendix by D. Mumford). **MR0765581 (86c:14010)**; 3. with E. Clarke, O. Grumberg, H. Hiraishi, S. Jha, D. Long

and K. McMillan, Verification of the Futurebus+ Cache coherence protocol, *Proceedings of the 1993 Conference on Hardware Description Languages*, (1993). Also published in *Journal of Formal Methods in System Design*; 4. with D. Bassu, R. Izmailov, A. McIntosh and D. Shallcross, Centralized multi-scale singular vector decomposition for feature construction in LIDAR image classification problems, IEEE Applied Imagery and Pattern Recognition Workshop (AIPR), 2012; 5. with D. Bassu, P. Jones and D. Shallcross, Product formalisms for measures on spaces with binary tree structures: Representation, visualization, and multiscale noise, <https://arxiv.org/abs/1601.02946>, (2016), submitted.

Statement by Candidate: I would welcome the opportunity to serve on the Nominating Committee of the AMS to identify a broad range of highly qualified candidates committed to the goals of the AMS: promoting mathematical research, transmission of mathematical understanding, supporting mathematical education, and advancing the status of the profession while facilitating full participation of all individuals. I followed a non-traditional career path in mathematics, moving from academic mathematics to industrial applied research and computer science and then re-engaging with mathematics as I began to focus on research in mathematics and data. The American Mathematical Society, especially the joint winter meetings, played a significant role in my re-engagement with mathematics and the mathematics community. The winter meetings gave me access to excellent talks on current mathematical research in a broad variety of fields, individual researchers, and the research community and its sub-communities—including the Association for Women in Mathematics and the NSF Centers. Recently, I have actively tried to involve mathematicians, including female mathematicians, in research on data by co-organizing two ICERM summer workshops in 2015 and 2017 on mathematics in data science. I have a great appreciation for the work of the AMS and would look forward to contributing, if elected.

**Alice Silverberg**

Professor, University of California, Irvine.

PhD: Princeton University, 1984.

AMS Committees: AMS Centennial Fellowship Committee, 1993–1995 (Chair, 1994–1995); AMS Policy Committee on Meetings and Conferences, 1995–1996; AMS Council, Member at Large, 1995–1998; AMS Policy Committee on Publications,

1996–1998; Editor, *Transactions of the AMS* and *Memoirs of the AMS*, 1996–2000; AMS Travel Grants Evaluation Panel, 2000; AMS Committee on Committees, 2000–2003; AMS-MAA Joint Program Committee for the National Meeting, 2005–2006, 2007–2008; AMS Program Committee for National Meetings, 2005–2008; AMS Cole Prize Committee, 2007–2008.

Selected Addresses: Invited Hour Address, AMS Fall Central Sectional meeting, 1995; Invited Hour Address, AMS Fall Eastern Sectional Meeting, 2005; MAA Invited Address, MathFest, 2009; MAA Distinguished Lecture, Washington, DC, 2010; AMS-MAA Invited Address, JMM, Atlanta, 2017. **Additional Information:** AMS Fellow, 2012; AWM Newsletter Editorial Team, 2008–present; AWM Executive Committee, 2006–2010; AWM Policy and Advocacy Committee, Co-chair, 2006–2007, Chair, 2007–2010. Special session organizer: AMS Fall Central Sectional Meeting, 1995; AMS Fall Western Sectional Meeting, 2015; JMM, 2017.

Selected Publications: 1. Mordell–Weil groups of generic abelian varieties, *Invent. Math.*, **81** (1985), no. 1, 71–106. **MR0796192 (87b:11046)**; 2. with Y. Zarhin, Polarizations on abelian varieties and self-dual l -adic representations of inertia groups, *Compositio Math.*, **126** (2001), no. 1, 25–45. **MR1827860 (2002f:11066)**; 3. with C. Popescu and K. Rubin (eds.), *Arithmetic of L -functions*, IAS/Park City Mathematics Series, 18, AMS, Institute for Advanced Study, Princeton, NJ (2011), xiv+499 pp. **MR2882750 (2012i:11001)**; 4. with R. Greenberg, K. Rubin and M. Stoll, On elliptic curves with an isogeny of degree 7, *Amer. J. Math.*, **136** (2014), no. 1, 77–109. **MR3163354**; 5. with H. Lenstra, Lattices with symmetry, *J. Cryptol.* (2017), 1–45, doi:10.1007/s00145-016-9235-7.

Statement by Candidate: If elected to the Nominating Committee, I will encourage the committee to recommend candidates who will take to heart the AMS's mission to further the interests of mathematical research, scholarship and education, including encouraging and facilitating full participation of our community.



Photo courtesy of Douglas Ulmer

Douglas Ulmer

Professor of Mathematics, Georgia Institute of Technology.

PhD: Brown University, 1987.

Selected Addresses: Course of four lectures at the Arizona Winter School, 2000; International Conference on the Birch and Swinnerton-Dyer Conjecture, Princeton University, 2003; Course of five lectures at the IAS/Park City Math Institute, 2009;

Course of 12 lectures at the CRM Barcelona, 2010; AMS Summer Institute on Algebraic Geometry, University of Utah, 2015.

Additional Information: Founding co-organizer of the Arizona Winter School, 1997–2006. Section editor, *Journal de Théorie des Nombres de Bordeaux*, 2014–present.

Selected Publications: 1. On universal elliptic curves over Igusa curves, *Invent. Math.*, **99** (1990), no. 2, 377–391. **MR1031906 (90m:11092)**; 2. with F. Cukierman, Curves of genus ten on $K3$ surfaces, *Compositio Math.*, **89** (1993), no. 1, 81–90. **MR1248892 (94m:14047)**; 3. Elliptic curves with large rank over function fields, *Ann. of Math.* (2), **155** (2002), no. 1, 295–315. **MR1888802 (2003b:11059)**; 4. Geometric non-vanishing, *Invent. Math.*, **159** (2005), no. 1, 133–186. **MR2142335 (2006d:11071)**; 5. Rational

curves on elliptic surfaces, *J. Algebraic Geom.*, **26** (2017), 357–377.

Statement by Candidate: The work of the AMS is important for all mathematicians and is deserving of our support. Much of this work is carried out through the elected committees. I am honored to be asked to stand for election to the nominating committee, and if elected I will endeavor to broaden the circle of members who are called upon to serve the AMS.



Photo courtesy of Shmuel Weinberger

Shmuel Weinberger

Andrew MacLeish Professor of Mathematics, University of Chicago.

PhD: Courant Institute, 1982.

AMS Committees: Centennial Fellow Committee, 1997–1998; AMS-AAAS Liaison Committee, 2010–2011; Central Section Program Committee, 2009–2010; Fellows Committee, 2014, 2015 (Chair), 2016; Veblen Prize Committee (Chair), 2015–2017.

Selected Addresses: Plenary Lecture, AMS Sectional Meeting, Chicago, 1989; Invited Speaker, International Congress of Mathematicians, 1994; Zabrodsky Memorial Lecture, Hebrew University, 2001; Hardy Lectures, London Math Society, 2008; Minerva Lectures, Princeton, 2017.

Additional Information: Sloan Foundation Fellowship, 1985; Presidential Young Investigator Award, 1985; Fellow of the AMS, 2013; Fellow of the American Association for the Advancement of Science, 2013.

Selected Publications: 1. with J. Bryant, S. Ferry and W. Mio, Topology of homology manifolds, *Ann. of Math.* (2), **143** (1996), no. 3, 435–467. **MR1394965 (97b:57017)**; 2. with A. N. Dranishnikov and S. C. Ferry, Large Riemannian manifolds which are flexible, *Ann. of Math.* (2) **157** (2003), no. 3, 919–938. **MR1983785 (2004b:53058)**; 3. with E. Guentner and N. Higson, The Novikov conjecture for linear groups, *Publ. Math. Inst. Hautes Études Sci.*, **101** (2005), 243–268. **MR2217050 (2007c:19007)**; 4. with P. Niyogi and S. Smale, A topological view of unsupervised learning from noisy data, *SIAM J. Comput.*, **40** (2011), no. 3, 646–663. **MR2810909 (2012h:62015)**; 5. with A. Nabutovsky, Variational problems for Riemannian functionals and arithmetic groups, *Inst. Hautes Études Sci. Publ. Math.*, **92** (2000), 5–62 (2001). **MR1839486 (2003f:58030)**.

Statement by Candidate: The vital work done by the AMS is, of course, actually done by its membership and much of it through their representatives on committees. If elected, I will be honored by the opportunity to collaborate with my colleagues to recruit a diverse group of excellent, hardworking, and dedicated mathematicians to serve our community.

Editorial Boards Committee

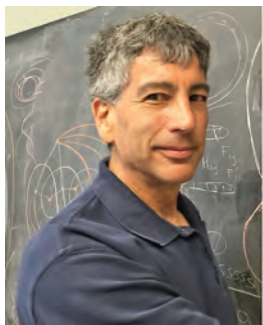


Photo courtesy of Joel Hass

Joel Hass

Professor, University of California, Davis.

PhD: UC Berkeley, 1981.

AMS Committees: Committee on Meetings and Conferences, 2005–2007 (Chair 2006–2007); Short Course Subcommittee, 2016–2019; Notices Editorial Board Committee, 2016–2019.

Selected Addresses: AMS-MAA Invited Address, Seattle Math-

Fest, “The double bubble conjecture,” 1996; Alexander Zabrodsky Memorial Lectures, Hebrew University, Jerusalem, “Recognizing the Unknot,” 2006; Invited Address, AMS Western Sectional Meeting, Las Vegas, “Optimal diffeomorphisms of surfaces and applications,” 2015.

Additional Information: NSF Postdoctoral Fellow, 1984–1986; Alfred P. Sloan Fellowship, 1989–1990; Fellow, American Mathematical Society, 2013–; Member, Institute for Advanced Study, Princeton, 1990–1991, 2000–2001, 2015–2016; Member, MSRI, 1984–1985, Fall 1987, 1996–1997; Visiting Professor, Hebrew University of Jerusalem, Fall 2014. Editorial Boards: *Geometriae Dedicata*, 1995–; *Notices of the AMS*, 2016–; *Geometry and Topology Monographs*, 2013–; *Journal of Applied and Computational Topology*, 2016–.

Selected Publications: 1. with M. Freedman and P. Scott, Least area incompressible surfaces in 3-manifolds, *Invent. Math.*, **71** (1983), no. 3, 609–642. **MR695910 (85e:57012)**; 2. with R. Schlafly, Double bubbles minimize, *Ann. of Math.*, **2**, **151** (2000), 459–515. **MR1765704 (2002d:53018)**; 3. with J. Lagarias and N. Pippenger, The computational complexity of knot and link problems, *J. ACM*, **46** (1999), no. 2, 185–211. **MR1693203 (2000g:68056)**; 4. with I. Agol and W. Thurston, The computational complexity of knot genus and spanning area, *Trans. Amer. Math. Soc.*, **358** (2006), no. 9, 3821–3850. **MR1511580 (2007k:68037)**; 5. with A. Thompson and W. Thurston, Stabilization of Heegaard splittings, *Geom. Topol.*, **13** (2009), no. 4, 2029–2050. **MR2507114 (2010k:57044)**.

Statement by Candidate: Publications play a central role in the mission and function of the AMS. If elected to the Committee on Publications, I will work to maintain high-level editorial standards for AMS journals and publications.



Photo courtesy of James Sethian

James Sethian

Professor of Mathematics, University of California, Berkeley.

PhD: University of California, Berkeley, 1982.

Selected Addresses: Plenary Lecture, International Congress of Industrial and Applied Mathematics, Edinburgh, 1999; I.E. Block Community Lecture Prize, SIAM Annual Meeting, Puerto

Rico, 2000; Plenary Lecture, Australian Mathematical Society, 2001; Invited Lecture, International Congress of Mathematicians, Beijing, 2002; Lighthill Lecturer, British Applied Mathematics Conference, 2003; Richard von Mises Lecture, 200th Anniversary Celebration of Humboldt University, Berlin, 2010; Pollak Prize Lecture, Technion, Israel, 2011; NSF Distinguished Lecture, 2014.

Additional Information: National Science Foundation Mathematical Sciences, Post-Doctoral Fellow, 1983–1985; Alfred P. Sloan Foundation Fellow, 1986–1988; Presidential Young Investigator Award, National Science Foundation, 1987; Robert Noyce Distinguished Teaching Prize, 1995; Norbert Wiener Prize, Joint AMS-SIAM, 2004; US National Academy of Engineering, 2008; Fellow, Society for Industrial and Applied Mathematics (SIAM), (initial Class of Fellows, 2009); Einstein Fellowship, Einstein Stiftung Berlin, 2011, Berlin; ICIAM Pioneer Prize, Vancouver, 2011; Cozzarelli Prize, National Academy of Sciences, 2012; Fellow, American Mathematical Society (initial Class of Fellows, 2012); US National Academy of Sciences, 2013; Honorable Mention: 2013 International Science & Engineering Visualization Challenge; Martin Meyerson Faculty Lecture, University of California, Berkeley, 2017.

Selected Publications: 1. Curvature and the evolution of fronts, *Comm. Math. Phys.*, **101** (1985), no. 4, 487–499.

MR0815197 (87d:58032); 2. with S. Osher, Fronts propagating with curvature-dependent speed: algorithms based on Hamilton–Jacobi formulations, *J. Comput. Phys.*, **79** (1998), no. 1, 12–49. **MR0965860 (89h:80012)**; 3. *Level set methods and fast marching methods*, Cambridge University Press, 1999. **MR1700751 (2000c:65015)**; 4. with R. Saye, Multiscale modelling of membrane rearrangement, drainage, and rupture in evolving foams, *Science*, **340** (2013), no. 6133, 720–724. **MR3086562**; 5. with J. Donatelli and P. Zwart, Iterative phasing for fluctuation X-ray scattering, *Proc. Natl. Acad. Sci.*, **112** (2015), no. 33, 10286–10291. **MR3395008**.

Statement by Candidate: It is a great honor to be a candidate for the AMS Editorial Boards Committee. AMS journals are a highly visible and flagship resource for the mathematics community. They inform our community of excellent research and scholarship. They promote and support the work of a wide and diverse group of authors. They uphold the standards of the profession, and they can expand upon the wide reach of mathematics. If elected, I hope to help continue these important goals and to focus on broadening the influence and voice of diverse communities on the growing mathematical landscape.

**Akshay Venkatesh**

Professor, Stanford University.

PhD: Princeton, 2002.

AMS Committees: Steele Prize Committee, 2012; AMS Western Section Program Committee, 2014–2016; Cole Prize Committee, 2016.

Selected Addresses: ICM, 2010; AMS Invited Address, JMM, 2011.

Additional Information: Editor of *Mathematische Annalen*,

2011–2017.

Selected Publications: 1. A note on sphere packings in high dimension, *Int. Math. Res. Not. IMRN* 2013, no. 7, 1628–1642. **MR3044452**; 2. with N. Bergeron, The asymptotic growth of torsion homology for arithmetic groups, *J. Inst. Math. Jussieu*, **12** (2013), no. 2, 391–447. **MR3028790**; 3. Sparse equidistribution problems, period bounds and subconvexity, *Ann. of Math. (2)* **172** (2010), no. 2, 989–1094. **MR2680486 (2012k:11061)**; 4. with J. Ellenberg and C. Westerland, Homological stability for Hurwitz spaces and the Cohen-Lenstra conjecture over function fields, *Ann. of Math. (2)* **183** (2016), no. 3, 729–786. **MR3488737**; 5. Cohomology of arithmetic groups and periods of automorphic forms, *Jpn. J. Math.*, **12** (2017), no. 1, 1–32. **MR3619577**.

Statement by Candidate: Journals play a vital role in our community but face new challenges. As our papers grow increasingly specialized, it becomes more difficult to review them fairly and in a timely fashion. Our papers are also getting longer, but ultimately printing costs limit the number of pages a physical journal can publish. As a member of the Editorial Board Committee, I'll try to nominate editors who have a broad vision of mathematics but who will also try creative new ideas to address these issues.

**Amie Wilkinson**

Professor of Mathematics, University of Chicago.

PhD: UC Berkeley, 1995.

AMS Committees: Program Committee for National Meetings, 2011–2014; Nominating Committee, 2013–2016; Central Program Committee, 2017–2020.

Selected Addresses: SIAM Conference on Applications of Dynamical Systems, Snowbird,

Utah, 2005; AMS Invited Address, JMM, San Francisco, 2010; Invited speaker, Dynamical systems and ordinary differential equations session, International Congress of Mathematicians, Hyderabad, India, 2010; Mathematical Congress of the Americas, Guanajuato, Mexico, 2013; AMS Current Events Bulletin, JMM, Seattle, 2016.

Additional Information: Ruth Lyttle Satter Prize, 2011; Fellow, AMS, 2013.

Selected Publications: 1. with C. Bonatti and S. Crovisier, The C^1 generic diffeomorphism has trivial centralizer,

Inst. Hautes Études Sci. Publ. Math., **109** (2009), 185–244. **MR2511588 (2010g:37035)**; 2. with K. Burns, On the ergodicity of partially hyperbolic systems, *Ann. of Math. (2)* **171** (2010), no. 1, 451–489. **MR2630044 (2011g:37075)**; 3. with K. Burns and H. Masur, The Weil–Petersson geodesic flow is ergodic, *Ann. of Math. (2)* **175** (2012), no. 2, 835–908. **MR2993753**; 4. with A. Avila and M. Viana, Absolute continuity, Lyapunov exponents and rigidity I: geodesic flows, *J. Eur. Math. Soc.*, **17** (2015), no. 6, 1435–1462. **MR3353805**; 5. with A. Avila and S. Crovisier, Diffeomorphisms with positive metric entropy, *Inst. Hautes Études Sci. Publ. Math.*, **124** (2016), 319–347. **MR3578917**.

Statement by Candidate: I have served on a total of eight editorial boards (including Transactions of the AMS) and am currently serving on three. In my editorial work I have come to appreciate the qualities that make a good editor, foremost among them timeliness, consistency, breadth of knowledge and open-mindedness. If I am elected, I will seek out these qualities in candidates for editorial boards, drawing from a diverse pool.