Biographies of Candidates 2006

Biographical information about the candidates has been verified by the candidates, although in a few instances prior travel arrangements of the candidate at the time of assembly of the information made communication difficult or impossible.

Candidates have had the opportunity to make a statement of not more than 200 words 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. Candidates with an asterisk (*) beside their names were nominated in response to a petition.

Abbreviations: American Association for the Advancement of Science (AAAS); American Mathematical Society (AMS); American Statistical Association (ASA); Association for Computing Machinery (ACM); Association for Symbolic Logic (ASL); Association for Women in Mathematics (AWM); Canadian Mathematical Society, Société Mathématique du Canada (CMS); Conference Board of the Mathematical Sciences (CBMS); Institute for Advanced Study (IAS), Institute of Mathematical Statistics (IMS); International Mathematical Union (IMU); London Mathematical Society (LMS); Mathematical Association of America (MAA); Mathematical Sciences Research Institute (MSRI); National Academy of Sciences (NAS); National Academy of Sciences/National Research Council (NAS/NRC); National Aeronautics and Space Administration (NASA); National Council of Teachers of Mathematics (NCTM); National Science Foundation (NSF); Society for Industrial and Applied Mathematics (SIAM).

Vice President

Robert L. Bryant



Juanita M. Kreps Professor of Mathematics, Duke University. **Born:** August 30, 1953, Harnett County, North Carolina, USA. **Ph.D.:** University of North Carolina at Chapel Hill, 1979. **AMS Offices:** Task Force on Mem-

bership, 1998–2000; Member at Large of the Council, 1999–2004; Associate Editor, *Journal of the American Mathematical Society*, 2005–2008.

AMS Committees: AMS-SIAM

Committee on Chinese Graduate Students, 1984–1989; Centennial Fellowships Committee, 1990–1992; U.S. National Committee for Mathematics, 1992–1995; Editorial Committee, *Transactions and Memoirs of the AMS*, 1992–1996; Committee on Publications, 1998–2004 (Chair, 2000–2004); Executive Committee, American Mathematical Society Council, 2000–2004; Editorial Boards Committee, 2006–2009.

Selected Addresses: AMS Regional Meeting, Laramie, WY, 1985, Invited Address, "Surfaces in Conformal Geometry"; Joint Mathematics Meetings, Baltimore, MD, 1998, Invited Address, "The Idea of Curvature for Differential Equations"; 230 Colóquio Brasileiro de Matemática (IMPA), Rio de Janeiro, 2001, Plenary Address, "Rigidity and quasirigidity of extremal cycles in Hermitian symmetric spaces"; Seventh Annual Kemeny Lectures, Dartmouth University, 2003, Invited Address, "Geometry Old and New: From Euclid to String Theory"; Ruth and Irving Adler Expository Lecture, The Institute for Advanced Study, Princeton, NJ, 2004, "Calibrations in Geometry and Topology".

Additional Information: Member of the MAA; Alfred P. Sloan Fellow 1982–1984; NSF Presidential Young Investigator 1984–1989; MAA Southeastern Region Distinguished Teaching Award, 1993; Elected Fellow of the American Academy of Arts and Sciences, 2002.

Selected Publications: 1. with Phillip Griffiths, "Characteristic cohomology of differential systems, II: Conservation laws for a class of parabolic equations", *Duke Math. Journal*, 78 (1995), no. 3, 531–676. MR1334205 (96d:58158); 2. "Recent advances in the theory of holonomy", *Astérisque*, 266 (2000), no. 5, 351–374 (Exposé No. 861). MR1772679 (2001h:53067); 3. "Bochner-Kähler metrics", *Journal of the AMS*, 14 (2001), no. 3, 623–715. MR1824987 (2002i:53096); 4. with Phillip Griffiths and Dan Grossmann, *Exterior Differential Systems and Euler-Lagrange Partial Differential Equations*, Chicago Lectures in Mathematics, University of Chicago Press, Chicago, IL (2003). MR1985469 (2004g:58001); 5. "Remarks on the geometry of almost complex 6-manifolds", *The Asian Journal of Mathematics* (August 23, 2005), math.DG/0508428.

Statement: I believe in supporting the central role of the AMS in promoting research in Mathematics and this should always be its main concern. This does not mean that the

AMS should only focus on what immediately benefits professional research mathematicians. Not only must we be concerned with educating the general public about the fundamental nature of mathematics and its practical importance in our increasingly technological lives, but we must also be involved in shaping the level and contents of mathematics education, not only at the college and university level, but earlier as well. I believe that we can and should continue our growth in traditional areas of mathematics but at the same time take advantage of new interdisciplinary opportunities, which will enliven our own research programs and simultaneously increase employment opportunities for our students.

The next several years will present major challenges to any business-as-usual approach to the AMS. Changing demographics, funding structures, and employment opportunities will affect the professional lives of all mathematicians. I look forward to a chance to study these problems and contribute what I can to finding creative solutions.

Sylvia Wiegand



Professor of Mathematics, University of Nebraska.

Born: March 8, 1945, Cape Town, South Africa.

Ph.D.: University of Wisconsin, 1972.

AMS Offices: Member at Large of the Council, 1994–1997.

AMS Committees: Committee on Committees, 1991–1992; Chair, Subcommittee to study the committee structure, 1992–1993; Committee on Meetings & Con-

ferences, 1994–2000 (Chair, 1994–1997); AMS Representative to Canadian Mathematical Society Board, 1994–1997; Review of Committee on Profession, 1996; Nominating Committee, 1997–2000; Organizing committee, Mentoring Workshop, Tucson, AZ, 2004; Editorial Board, *Electronic Research Announcements*, 2005–2008; Committee on Academic Freedom, Tenure, and Employment Security (CAFTES), 2005–2008; Local organizer, Fall, 2005, Central Sectional Meeting, Lincoln; Co-organizer of special sessions at San Francisco (1995), Seattle (1996), Pretoria, South Africa (1997), San Diego (1997), Lincoln, NE (2005).

Selected Addresses: AMS Invited Address, Fargo, SD, October, 1991; Commutative Algebra Conference, Venice, Italy, June, 2002; Commutative Algebra Conference, Graz, Austria, September, 2003; Special session, AMS-DMS Joint Meeting, Mainz, Germany, June, 2005; Special session, Joint Mathematics Meetings, San Antonio, TX, January, 2006.

Additional Information: Editorial Board, *Communications in Algebra*, 1990–2005; Editorial Board, *Rocky Mountain Journal of Mathematics*, 1991–2005; President, Association for Women in Mathematics, 1997–1999; Member at Large, Canadian Mathematical Society Board, 1997–2001; Project NExT consultant, 1999–2002; UNL Chancellor's Com-

mission on the Status of Women Award, 2000; AWM Nominating Committee, 2001–2002; Co-organizer, Women in Mathematics events at ICM, Beijing, 2002 and Berlin, 1998; Visiting Scientist, National Science Foundation, 2002–2003; MAA Coordinating Council on Awards, 2002–2005 and 2006–2009; MAA Science Policy Committee, 2005–2008; MAA Joint Meetings Program Committee, 2005–2007.

Selected Publications: 1. with W. Heinzer and C. Rotthaus, "Intermediate rings between a local domain and its completion" II, *Illinois J. Math.* **45** (2001), no. 3, 965-979. MR1879247 (2003e:13003); 2. with W. Fleming, Obituary: Laurence Chisholm Young (1905-2000), *Bull. London Math. Soc.* **36** (2004), no. 3, 413-424. MR2038729; 3. with W. Heinzer and C. Rotthaus, "Catenary local rings with geometrically normal formal fibers", *Algebra, Arithmetic and Geometry with Applications*, Springer, Berlin, 2004, 497-510. MR2037106 (2005a:13023); 4. with W. Heinzer and C. Rotthaus, "Generic formal fibers of mixed power series/polynomial rings", *J. Algebra*, to appear; 5. with M. Arnavut and Melissa Luckas, "Indecomposable modules over one-dimensional Noetherian rings", *J. Pure Appl. Algebra*, to appear.

Statement: The dedication of the officers, staff and members of the American Mathematical Society in the many areas related to our profession has truly made our world better. We should continue this tradition. In particular we still need to increase the participation of underrepresented groups in mathematics, to bring more talented young people into mathematics, to improve federal and local support for mathematics, and to increase public awareness of mathematics. We should work with math educators toward our mutual goals of preparing future mathematicians and scientists and generally getting people to reason critically. At the same time let's continue to create, communicate and celebrate mathematics!

Trustee

Henry B. Laufer



Chief Scientist, Renaissance Technologies.

Born: August 13, 1945, Brooklyn, New York, USA.

Ph.D.: Princeton University, 1966. **Selected Publications:** 1. "Normal two-dimensional singularities", *Ann. Math. Studies*, #71, Princeton University Press, Princeton, NJ, 1971. MR0320365 (47 #8904); 2. "Deformations of resolutions of two-dimensional singularities", *Rice Univ. Studies*, 59

(1973), no. 1, 53–96. MR**0367277 (51 #3519)**; 3. "On minimally elliptic singularities," *Amer. J. Math.*, **99** (1977), no. 6, 1257–1295. MR**0568898 (58 #27961)**; 4. "Weak simultaneous resolution for deformations of Gorenstein surface singularities", *Proc. Sym. Pure Math.*, **40**, Part 2 (1983), 1–29. MR**0713236 (84k:32030)**; 5. "Strong simultaneous resolution for surface singularities", *Adv. Studies in Pure Math.*, **8** (1986), 207–214. MR**0894294 (88g:32024)**. **Statement:** I was a typical academic Professor, at SUNY at Stony Brook, until 1991. Then I joined Renaissance Technologies, where I help to manage a hedge fund. As a Trustee, I would bring a broad, non-academic viewpoint to the Society. My general feeling here is that the Society should devote more effort to the welfare of mathematicians, as distinct from the welfare of mathematics. My business experience should also prove valuable with regard to the internal affairs of the Society.

Carol Saunders Wood



Professor of Mathematics, Wesleyan University.

Born: February 9, 1945, Pennington Gap, Virginia, USA.

Ph.D.: Yale University, 1971.

AMS Offices: Member at Large of Council, 1987–1990; Nominating Committee, 1992–1995 (Chair 1993–1994); Board of Trustees, 2002–2007.

AMS Committees: Employment Task Force 1991–1992; Committee to Review Member Publications.

1992; Satter Prize Committee, 1994–1996; Committee on Graduate Education, 1995–1997; Committee on Meetings and Conferences, 2002, 2006; Committee on the Profession, 2003–2005 (Chair 2004–2005).

Additional Information: AWM: Executive Committee. 1988-1990, President, 1991-1993, Strategic Task Force, 2004-2005. ASL: Chair of Membership Committee, 1985-1990; Member, Executive Committee, 1998–2001, Chair of Program Committee and Co-Editor of Proceedings, Logic Colloquium 2000, La Sorbonne, Paris. Science Service: Mathematics judge, Intel Science Talent Search, 1991-present. MAA: Committee on Undergraduate Program in Mathematics. 1988-1991: Chauvenet Prize Committee. 1993-1996. MSRI: Deputy Director, 1996-1997; Program Chair, Model theory of fields, Spring, 1998; Building Committee, 2000–2001; Member, Board of Trustees, 1999–2003. NSF: DMS Program Officer, 1994-1996; Advisory Committee, Division of Mathematical and Physical Sciences, 1997-2000. Newton Institute: Senior Visiting Fellowship, Spring, 2005; Program Committee, July 2005 workshop, Model theory and applications to algebra and analysis. Wesleyan University: Faculty, 1972-present; Chair of the Faculty, 2000-2001; Department Chair, 1991-1993, 1999-2000, 2002-2004; faculty head of (campus-wide) Tenure and Promotions Committee, 2004 and 2006; presently supervising fourth Ph.D. student.

Statement: The role of AMS Trustee has been demanding at times, but never uninteresting. It is a privilege to serve, especially during an era in which the Society has enjoyed strong and imaginative leadership. I have tried to build on my experience within the mathematics community, alongside the experience and wisdom of others, to seek out what works best for mathematics and for mathematicians throughout our careers. If elected, I would continue to look for ways to promote the recognition of mathematics, including its rich interplay with other disciplines, and to celebrate and communicate its success stories. One sign of excellent health, and a lifelong goal for me, would be for the demographic profile of mathematicians to become indistinguishable from that of our society. This goal informs my priorities as Trustee, as does a desire for our community to be open and welcoming to its newest members.

Member at Large of the Council

Rodrigo Bañuelos

Professor of Mathematics, Purdue University.

Born: June 5, 1954, La Masita, Zacatecas, Mexico.

Ph.D.: University of California, Los Angeles, 1984.

AMS Committees: Central Section Program Committee, 1991–1993 (Chair, 1992–1993); Task Force on Participation of Underrepresented Minorities, 1995; *Transactions and Memoirs* Editorial Committee, 1996–2000; Book

Prize Committee, 2003–2004; Selection Committee for Invited Hour Speakers, Joint Meeting with Mexican Math. Society, 2004; Committee on Committees, 2004; Steele Prizes Committee, 2005–2008.

Selected Addresses: International Conference on Interpolation and Applications, Lund, Sweden, 1986; The King-Chavez-Parks Lectures, University of Michigan, 1989; Seminar on Stochastic Processes, Annual Meeting, Seattle, 1992; Joint IMS 57th Annual Meeting and Third World Congress of the Bernoulli Society, Chapel Hill, 1994; AMS Invited Address, DePaul University, 1995; VI Latin American Congress in Probability Statistics, Valparaiso, 1995; Introductory Lectures, Workshop on Euclidean Stochastic Analysis, MSRI, 1998; Distinguished Lecture Series, Arizona State University, 2005; "Topical Speaker", SIAM, Boston, 2006.

Additional Information: Bantrell Research Fellow, Caltech, 1984–1986; NSF Presidential Young Investigator, 1989–1994; Associate Editor, *Annals of Probability*, 1991–1997; NSF Postdoctoral Fellow, University of Illinois, 1996–1997; United States National Committee on Mathematics, 1997–2000; MSRI Scientific Advisory Council, 1998–2002; Fellow, Institute of Mathematical Statistics, 2003; Blackwell-Tapia Prize recipient, 2004; IPAM Board of Trustees, 2005–2008.

Selected Publications: 1. with I. Klemes and C. Moore, "An analogue for harmonic functions of Kolmogorov's law of the iterated logarithm", *Duke Mathematical Journal*, **57** (1) (1988), 37–68. MR**1054531 (92d:31001)**; 2. "Intrinsic ultracontractivity and eigenfunction estimates for Schrödinger operators", *Journal of Functional Analysis*, **100** (1) (1991), 181–206. MR**1124298 (92k: 35066)**; 3. with G. Wang, "Sharp inequalities for martingales with applications to the Beurling-Ahlfors and Riesz transforms", *Duke Mathematical Journal*, **80** (1995), 575–600. MR1370109 (96k:60108); 4. with K. Burdzy, "On the 'hot spots' conjecture of J. Rauch", *Journal of Functional Analysis*, **164** (1) (1999), 1–33. MR1694534 (2000m:35085); 5. with T. Kulczycki, "The Cauchy processes and the Steklov problem", *Journal of Functional Analysis*, **211** (2004), 355–423. MR2056835 (2005b:60124).

Statement: Our profession will continue to face, as it has for many years, many challenges. These include 1) research funding opportunities for pure and applied mathematics, 2) employment opportunities for new and recent Ph.D.'s and 3) the dissemination and publication of high quality mathematics at affordable prices, to mention but a few. The AMS must continue to work on these problems. At the same time we must keep in mind that the health and vitality of any organization and any profession depend on the young people. I am concerned that despite the efforts of the last decade, including the VIGRE program, the many REU sites around the country, and the opportunities created by the mathematics research institutes, we are still not attracting enough young people to careers in the mathematical sciences. This problem is particularly serious within the minority student population where these efforts have had a limited impact. If elected, I will work within the AMS to raise greater awareness on these issues.

Robert L. Devaney



Professor of Mathematics, Boston University.

Born: April 9, 1948, Methuen, Massachusetts, USA.

Ph.D.: University of California, Berkeley, 1973.

AMS Committees: Short Course Committee, 1990–1994; Student Library Committee (chair), 1997–2001; Arnold Ross Lecture Series (chair), 2000–2004; Committee on Education, 2000–2004; Bulletin of the AMS Book Reviews,

editor, 2003-.

Selected Addresses: AMS World Mathematics Year, UCLA, 2000; J. Sutherland Frame Lecture, MAA Mathfest, University of Colorado, 2003; Holomorphic Dynamics Meeting, Fields Institute, 2006; London Math. Society Scheme Two Lecturer, series of 11 lectures around the UK, January-February, 2006; Academia Sinica Colloquium Series, Taipei, Taiwan, 2006.

Additional Information: Co-organizer: AMS Short Course on Chaos and Fractals, Centennial Meeting, Providence, RI, 1988; Director, Dynamical Systems and Technology Project, Boston University, 1990-; Organizer, AMS Short Course on Complex Dynamics, Cincinnati, 1994; MAA Haimo Award, 1995; NSF Distinguished Teaching Scholar Award, 2002; NSF-EHR Advisory Board, 2002–2005; Massachusetts Professor of the Year, Carnegie Foundation, 2004; Coorganizer, AMS-IMS-SIAM Summer Research Conference on Complex Dynamics, Snowbird, 2004; Trevor Evans Award, MAA, 2005. Selected Publications: 1. An Introduction to Chaotic Dynamical Systems, Perseus Press, 1985; 2. "Cantor and Sierpinski, Julia and Fatou: Complex topology meets complex dynamics", Notices of the AMS, 51 (2004), no. 1, 9–15. MR2022671 (2004i:37092); 3. "Structure of the McMullen domain for rational maps", Fundamenta Mathematicae, 185 (2005), no. 3, 267–285. MR2161407 (2006c:37046); 4. with D. M. Look and D. Uminsky, "The escape trichotomy for singularly perturbed rational maps", Indiana University Mathematics Journal, 54 (2005), no. 6, 1621–1634. MR2189680; 5. with P. Blanchard et al. "Sierpinski-curve Julia sets and singular perturbations of complex polynomials", Ergodic Theory and Dynamical Systems, 25 (2005), no. 4, 1047–1055. MR2158396 (2006d:37087).

Statement: The AMS has assumed a leadership role in communicating the beauty and the importance of mathematics and mathematical research to the wider community. I wholeheartedly support the AMS in these outreach activities. I also support the development of strong ties between all segments of the mathematics community, including researchers, teachers at all levels, and mathematicians in government and industry.

Detlef Gromoll



Professor of Mathematics, SUNY Stony Brook.

Born: May 13, 1938, Berlin, Germany.

Ph.D.: University of Bonn, 1964. **AMS Committees:** Northeastern Section Program Committee (1989–1991).

Selected Addresses: ICM, Nice (1970); 4th Geometry Festival, UNC Chapel Hill (1988); 38th AMS Summer Inst., Los Angeles (1990); Plenary Lecture, CMS Meeting, St.

John (1998); Plenary Speaker, 50th Anniversary of IMPA (2002).

Additional Information: Miller Fellow, UC Berkeley (1966–1968); Selected visiting positions: École Polytechnique and IHÉS, Paris (1975), University of Münster (1983), IMPA Rio de Janeiro (1984/1996/1997), MSRI Berkeley (1993); Alexander von Humboldt U.S. Senior Scientist Award (1983); Co-organizer of international conferences on Diff. Geometry: Münster (1992–2005), Oberwolfach (1999), Stony Brook (1985–2003); Principal investigator on NSF grants for almost 30 years.

Selected Publications: 1. with W. Meyer, "Periodic geodesics on compact riemannian manifolds", *J. Diff. Geometry* **3** (1969), 493–510. MR**0264551 (41 #9143)**; 2. with J. Cheeger, "On the structure of complete manifolds of nonnegative curvature", *Ann. of Math.* **96** (1972), 413–443. MR**0303460 (46 #8121)**; 3. with U. Abresch, "On complete manifolds with nonnegative Ricci curvature", *J. Amer. Math. Soc.* **3** (1990), 355–374. MR **1030656 (91a:53071)**; 4. with M. Dajczer, "The Weierstrass representation for complete minimal real Kaehler submanifolds of codimension 2", *Invent. Math.* **119** (1995), 235–242. MR**1312499**

(96c:53095); 5. with G. Walschap, "The metric fibrations of euclidean spaces", *J. Diff. Geometry* 57 (2001), 233–238. MR1879226 (2002k:53053).

Statement: Having advised more than twenty Ph.D. students, I consider it a most rewarding challenge to pass on exciting new mathematics to the next generation. There are many tough issues with graduate education: We must work harder to attract more top domestic students to the field and redouble our efforts to achieve diversity. We need a better support structure for graduate students, nationally and locally. NSF is moving in only slowly, and AMS can play a bigger role beyond the current initiatives. At a different level, the serious problems with high school curricula and teacher training in Mathematics are getting more and more attention, also within AMS. As recent department chair I was involved with reshaping our local math ed program according to new state and national guidelines. I had the privilege to attend the annual AMS Education Committee meetings on several occasions, and remain very interested in these problems.

Other areas of concern to me include the rapidly changing ways mathematics is disseminated and published, for instance the flood of new journals versus unlimited electronic options, and the future of our libraries.

Gregory F. Lawler



Professor of Mathematics, University of Chicago.

Born: July, 14, 1955, Alexandria, Virginia, USA.

Ph.D.: Princeton University, 1979. **AMS Committees:** Editorial Boards Committee, 2000–2002 (Chair, 2001).

Selected Addresses: AMS Invited Address, Gainesville, 1999; Invited Address, International Congress of Mathematicians, Beijing, 2002; Mini-course, 6th Brazil-

ian School of Probability, Ubatuba, 2002; Rothschild Visiting Professor Lecturer, Newton Institute, Cambridge, 2003; AMS Invited Address, Phoenix, 2004.

Additional Information: NSF Graduate Fellow, 1976–1979; Sloan Fellow, 1986–1990; Fellow, Institute of Mathematical Statistics, 1991; Co-founder, *Electronic Journal of Probability*, 1995; Fellow, American Academy of Arts and Sciences, 2005; Editor, *Annals of Probability*, 2006–.

Selected Publications: 1. Intersections of Random Walks, Birkhäuser Boston, Inc., Boston, MA, 1991. MR1117680 (92f:60122); 2. Introduction to Stochastic Processes, CRC/Chapman and Hall, New York, NY, 1995 (second edition 2006). MR1372946 (97a:60001); 3. with L. Coyle, *Lectures on Contemporary Probability*, Student Mathematical Library, vol. 2, American Mathematical Society, Providence, RI, 1999. MR1707283 (2000f:60004); 4. with O. Schramm and W. Werner, "Conformal restriction: The chordal case", *J. Amer. Math. Soc.* 16 (2003), no. 4, 917–955. MR1992830 (2004g:60130); 5. Conformally Invariant Processes in the *Plane*, Mathematical Surveys and Monographs, vol. 114, American Mathematical Society, Providence, RI, 2005. MR**2129588**.

Statement: There are a number of challenges facing American mathematicians in the twenty-first century. One of the most important is to promote research mathematics to the wider community. As we go through a period of many retirements at universities, it is critical that positions are filled by research mathematicians (who are also excellent teachers). Since it is clearly less expensive for many departments to replace researcher/educators with full-time teachers, this will require continual emphasis and demonstration of the importance of a strong mathematics research community.

Frank S. Quinn



Professor, Virginia Polytech Institute & State University, Blacksburg, Virginia.

Born: June 3, 1946, Havana, Cuba. **Ph.D.:** Princeton University, 1970. **AMS Offices:** Council of the AMS, 1991; *Bulletin of the AMS*, Research Announcements editor: associate 1988–1990, managing 1990–1993. **AMS Committees:** Hour speakers for Southeastern section; Committee on Publication Policy; Committee on the Profession,

1999–2002; Committee on Committees, 1999–2003; Committee on Education, 2006–2008.

Selected Addresses: CBMS lectures, University of Notre Dame, 1984; ICM, 45 minute speaker, 1986; Park City Math Institute short course, 1991.

Additional Information: Virginia Outstanding Faculty Award, 1987; Fellow of American Association for the Advancement of Science, 2000.

Selected Publications: 1. "Homotopically stratified spaces", *Journal American Mathematical Society* 1 (1988), no. 2, 441–499. MR0928266 (89g:57050); 2. with M. Freedman, *Topology of 4-manifolds*, Princeton University Press, 1990. MR1201584 (94b:57021); 3. with A. Jaffe, "Theoretical mathematics": toward a cultural synthesis of mathematics and theoretical physics, *Bulletin of the American Mathematical Society* 29 (1993), no. 1, 1–14. MR1202292 (94h:00007); 4. "The K-12 math test conundrum", Opinion column, *Notices of the American Mathematical Society*, 52 (April 2005); 5. Hyperelementary assembly for virtually abelian groups, Preprint, Sept. 2005. http://arXiv.org/abs/math.GT/0509294.

Statement: The AMS Council already has many concerns both internal (meetings, publications, etc.) and external (funding, attracting new talent). Nonetheless I feel the AMS—starting with the Council—should consider further issues in the near future. These include:

(1) Web and computer-based courses and testing. These are cost-effective and this alone will drive use. However, they are often mechanical, weaken communication skills, and short-change better students. The AMS might provide reviews or a clearing-house for these efforts to promote good work and to keep problems clearly in view.

(2) K-12 education. The U.S. decline effects college and university programs and threatens the long-term health of the mathematical community. Individual mathematicians have made substantial contributions, but the problem is huge and the academic community, as a whole, cannot divert resources from already under-funded primary missions. AMS activity should focus on areas with great leverage. One is high-stakes K-12 standardized tests: current tests are desperately in need of professional help. Another might be developing a "sense of the community" of what high-school graduates should know to be successful in college work.

Election to the Council should be an opportunity to serve the community, not a mandate to pursue an individual agenda. If elected, I would hope to get input from the community on these and other issues.

David J. Saltman



Mildred Caldwell and Baine Perkins Kerr Centennial Professor in Mathematics, University of Texas at Austin, Austin, Texas. **Born:** March 23, 1951, New York City, New York, USA.

Ph.D.: Yale University, 1976. **AMS Committees:** Algebra Edi-

tor, *Trans. Amer. Math. Soc.*, 1987-1990; Managing Editor, *Trans. Amer. Math. Soc.*, 1990-1992; Panel to choose NSA grants 1992-1996; NSF Postdocs panel

1997-2000; *Graduate Studies in Mathematics*, Editorial Committee, 1997-, Chair 2000-; National Program Committee, 2001-2004, Chair, 2002-2004; ICM travel grants panel, 2002, Chair 2006.

Selected Addresses: "Noether's problem, Galois theory, and the Brauer Group" (one hour address), Joint Mathematics Meetings, January, 1987; "Unramified Cohomology" (4 lectures), Tata Institute for Fundamental Research, Bombay, India, January–February, 1997; CBMS Lecture Series "Lectures on Division Algebras", Colorado State University, June, 1998; "Division algebras", Invited speaker, Richard Brauer Centennial Conference, Stuttgart, Germany, March, 2001; "Mathematics in History", two day-long seminars as part of the "Teachers as Scholars" program of the UT Humanities Institute, April, 2002.

Additional Information: Member, AWM; National Science Foundation Graduate Fellowship, 1972–1975; National Science Foundation Postdoctoral Fellowship, 1980–1981; Sloan Foundation Fellowship, 1980–1984; University of Texas-Austin, College of Natural Science Teaching Award, 2002; Principle PI of UT VIGRE grant, 2001–2006.

Selected Publications: 1. "Generic Galois extensions and problems in field theory", *Advances in Math.*, **43** (1981), no. 3, 250–283. MR**0648801 (84a:13007);** 2. "Noether's problem over an algebraically closed field", *Invent. Math.*, **77** (1984), no. 1, 71–84. MR**0751131 (85m:13006);** 3. with

L. Rowen, "Semidirect product division algebras", *Israel Journal of Mathematics*, **96** (1996), part B, 527–552. MR**1433706 (98b:16015)**; 4. "Division algebras over *p*-adic curves", *J. Ramanujan Math. Soc.* **12** (1997), no. 1, 25–47. MR**1462850 (98d:16032)**.

Statement: The AMS is and should be the main support organization for research mathematicians. In this role it publishes journals and books, sponsors lectures and meetings, and generally supports mathematics research. The AMS also has a vital role in ensuring the health of the mathematical community by encouraging diversity in our ranks, and helping to support emerging and young mathematicians. The AMS also has a public role to play, because the outlook and precision of mathematics is vitally needed by students of all interests and by society in general. As a member of the Council, I hope to be able to contribute as the AMS pursues and balances these goals.

Martin G. Scharlemann



Professor of Mathematics, University of California at Santa Barbara.

Born: December 6, 1948, Carlisle Barracks, Pennsylvania, USA.

Ph.D.: University of California, Berkeley, 1974.

AMS Committees: Western Sectional Speaker Selection Committee, 2003–2005; AMS-IMS-SIAM Joint Summer Research Conferences, 2005–2009.

Selected Addresses: UCSB Sci-

ence and Engineering Commencement Address, 1984; AMS Invited Address, Honolulu, 1987; London Mathematical Society Spitalfields Lecturer, 1987; Chinese Academy of Sciences, Beijing, 1998; Sixteenth William J. Spencer Lecture, Kansas, 2001.

Additional Information: Alexander von Humboldt Foundation Research Fellowship, 1989; Chair of Department, 1996–1999; Miller Research Professorship, Berkeley, 1999; Principal Editor, *Algebraic and Geometric Topology*, 2000-; Member, Advisory Board, California State Mathematics Project, 2000–2001; Visiting Research Professor, RIMS, Kyoto, 2001.

Selected Publications: 1. "Spheres in *R*⁴ with four critical points are standard", *Invent. Math.*, **79** (1985), no. 1, 125–141. MR0774532 (86e:57010); 2. "Unknotting number one knots are prime", *Invent. Math.*, **82** (1985), no. 1, 37–55. MR0808108 (86m:57010); 3. "Sutured manifolds and generalized Thurston norms", *Jour. Diff. Geometry*, **29** (1989), no. 3, 557–614. MR0992331 (90e:57021); 4. with Abigail Thompson, "Detecting unknotted graphs in 3-space", *Jour. Diff. Geom.*, **34** (1991), no. 2, 539–560. MR1131443 (93a:57012); 5. with Hyam Rubinstein, "Comparing Heegaard splittings of non-Haken 3-manifolds", *Topology*, **35** (1996), no. 4, 1005–1026. MR1404921 (97j:57021).

Statement: The AMS is the only institution that fully understands and supports the process of mathematical re-

search. With this unique role comes special responsibilities: to articulate clearly the power and the beauty of mathematics to the general public; to argue convincingly for the resources that are needed to sustain mathematical research; to help undergird the larger infrastructure (education, publication venues, etc.) on which mathematical research ultimately relies. Most importantly, the AMS must continue to affirm the value of research to mathematicians involved in that process, for whom every other voice may be arguing that their talents are best used elsewhere. There is little point in the AMS duplicating, at member expense, advice that an often harried and professionally vulnerable mathematician can get from her dean for free. The AMS does remarkable work: MathSciNet continues to amaze. AMS non-specialized journals can be instantly accessed from any (subscribing) institution in the world. But can it do more to resist predatory academic publishers? For example, does the AMS actively encourage mathematicians to establish other, more focused, open-access journals, or are such efforts viewed as unwelcome competition? The AMS should remain wary of its own institutional conflicts of interest, and its leadership should resist them.

Marjorie Senechal



Louise Wolff Kahn Professor in Mathematics and History of Science and Technology, Smith College.

Born: July 18, 1939, St. Louis, Missouri, USA.

Ph.D.: Illinois Institute of Technology, 1965.

Selected Addresses: Olympiad Address, National Academy of Sciences, Washington DC, June, 1994; Five lectures on the work of G. Voronoi, Institute of Mathemat-

ics, Ukrainian Academy of Sciences, Kyiv, March, 1998; Symmetry 2000 conference, Stockholm, September, 2000; Conference in memory of Louis Michel, École Polytechnique, January, 2001; "Donald and the Golden Rhombohedra", at the conference Reflections and Projections, in memory of H.S.M. Coxeter, University of Toronto, May, 2004.

Additional Information: Institute of Crystallography, Academy of Sciences of the USSR, Moscow, 1979-1980; National Academy of Sciences Scientific Advisory Committee on USSR and Eastern Europe, 1982–85 and 1989–1992; Institut des Hautes Études Scientifiques (IHÉS), Bures-sur-Yvette, France, Jan.-March, 1983, January, 1985, January, 1989, December-March, 1993-1994, 1995, June, 1997, February-March, 2002, January, 2003; Institute of Physics, Czechoslovak Academy of Science, Prague, Nov.-Dec., 1985; Editorial Board, Discrete and Computational Geometry, 1985-; International Union of Crystallography Commission on Aperiodic Crystals, 1987–1999; Editorial Board, MAA Carus Mathematical Monographs, 1987-1996 (Editor, 1992-1996); Director, NSF Regional Geometry Institute, 1993; The Geometry Center, University of Minnesota, Minneapolis, MN, October, 1993; Board of Governors, The Geometry Center, University of Minnesota, 1994–1998; Board of Directors, U. S. Civilian Research and Development Foundation, 1995–; The Fields Institute, Toronto, Ontario, fall semester, 1995; Editor of column, "Mathematical Communities" for *The Mathematical Intelligencer*, 1997–; The Erwin Schroedinger Institute, Vienna, November, 1998; Co-organizer, five day workshops, "Creative Writing in Science and Mathematics", Banff International Research Station, Banff, Canada, 2003, 2004, 2006; Co-Editor-in-Chief, *The Mathematical Intelligencer*, 2005–.

Selected Publications: 1. with G. Fleck, editors (and contributors), *Shaping Space: A Polyhedral Approach*, Birkhäuser, Boston, 1988. MR0937069 (89b:52016); 2. *Crystalline Symmetries: An Informal Mathematical Introduction*, Institute of Physics, Alan Hilger, Ltd., 1990. MR1100479 (92c:20092); 3. "Introduction to lattice geometry", *From Number Theory to Physics*, M. Waldschmidt and P. Moussa, eds., Springer Verlag, 1992. MR1221109 (94f:11058); 4. *Quasicrystals and Geometry*, Cambridge University Press, 1995; paperback edition 1996. MR1340198 (96c:52038); 5. with P. Engel, L. Michel, *Lattice Geometry*, Institut des Hautes Études Scientifiques, preprint, posted 2004 on http://www.ihes.fr.

Statement: The AMS is the mathematical community's strongest advocate for mathematics research and research mathematicians, and I'm honored to be nominated to serve on its Council. I will, if elected, work to strengthen that voice. First, in the corridors of power. We must, as always, do all we can to increase support-grants, conferences, centers, and special programs—for research. We must preserve or increase the ratio of civilian to other funding, by pressing for higher funding levels for the NSF and other nonmilitary and non-security-related grant-making agencies. Second, we must enhance and improve our public outreach: the future of our profession depends on it. It takes a society—small 's'-to inspire, encourage, train and provide jobs for new generations of mathematicians; our Society must find creative ways to spread awareness of what mathematics is, what mathematicians do, and why both matter. Third, we must continue to broaden our own constituency. Changes in the AMS's demographic landscapegender, age, institutional, disciplinary (including cross, multi, and inter)-are increasingly visible, but we can do more to encourage and support these trends. And fourth, we must broaden and strengthen international contacts between mathematicians, now more than ever.

Katherine St. John



Associate Professor of Mathematics & Computer Science, Lehman College and the Graduate Center, City University of New York.

Ph.D.: University of California, Los Angeles, 1995.

AMS Committees: Joint Committee on Employment Opportunities in the Mathematical Sciences, 2001–2006.

Selected Addresses: Mathematical Biology Special Session, American Mathematical Society, 2003

Fall Southeastern Section Meeting, Chapel Hill, October, 2003; Third International Workshop on Algorithms in Bioinformatics, Budapest, Hungary, September, 2003; Geometric Models of Biological Phenomena Workshop, American Institute of Mathematics Research Conference Center, June, 2003; Society of Mathematical Biology Annual Meeting, Minisymposium on Combinatorial Biology, July, 2004; Computational Biology Branch Seminar, National Center for Biotechnology Informatics (NCBI), June, 2004; Tenth Annual New Zealand Phylogenetics Meeting, February, 2005; Molecular and Computational Biology Seminar, U. of Southern California, February, 2005.

Additional Information: Fellow, Texas Institute for Computational and Applied Mathematics (TICAM), U. Texas, 2000-2001; Advisor for NSF IGERT: Training Grant in Computational Phylogeny, U. Texas, Austin, 2001-; Co-director, Lehman College NSF Computer Science & Mathematics Scholarship Program, 2001-; External Review Panel, NSF VIGRE: Research Focus Groups in Mathematics, U. of California, Davis, 2002-; Visiting Researcher, Centre de Recerca Matemàtica, Barcelona, Spain, January to July, 2005. Selected Publications: 1. with Joel H. Spencer, "Random unary predicates: Almost sure theories and countable models", Random Structures & Algorithms, 13 (1998), no. 3-4, 229-248. MR1662784 (2000h:03061); 2. with Joel H. Spencer, "The tenacity of zero-one laws", The Electronic Journal of Combinatorics, 8 (2001), no. 2, Research Paper 17, 14 pp. (electronic). MR1853268 (2002g:05012); 3. with Bernard M. E. Moret, Tandy Warnow, and Lisa Vawter, "Large performance study of phylogenetic methods: (Unweighted) quartet methods and neighbor-joining", Journal of Algorithms, 48 (2003), no. 1, 173-193. MR2006101 (2004g:68209); 4. with Luay K. Nakhleh, Tandy Warnow, and C. Randal Linder, "Reconstructing reticulate evolution in species theory and practice", Journal of Computational Biology, 12 (2005) (6-7), 796-811; 5. with David Hillis and Tracy Heath, "Analysis and visualization of tree space", Sys*tematic Biology* (cover article), **54** (June 2005) (3), 471-482. **Statement:** The AMS is the organization in the U.S. which advocates for research activities in the mathematical sciences. It is necessary that we include all those with the talent and interest to succeed, especially members of underrepresented groups. Reaching out to these students in their undergraduate years by providing research opportunities is vital to their inclusion. The AMS has significant efforts in involving undergraduates in research. These activities are important to opening the eyes of students to the beauty and power of mathematics. Providing additional support to graduate students, postdoctoral fellows, and young faculty is essential to keeping young people in the profession. These include increased mentoring, inclusion at research meetings, addressing dual career issues and the streamlining of the job searching process. As a member of the Joint Committee on Employment Opportunities and a mentor to research students, I have seen first hand, how encouragement and removal of administrative hurdles can make a huge difference in the success of individual students.

Francis Edward Su



Associate Professor of Mathematics, Harvey Mudd College. **Born:** October 7, 1969. **Ph.D.:** Harvard University, 1995. **AMS Committees:** Short Course Subcommittee, 2006-. **Selected Addresses:** Invited Speaker, Georgia Topology Con

Speaker, Georgia Topology Conference, Athens, GA, May, 2002; Topological and Geometric Combinatorics, Oberwolfach, Germany, April, 2003; Park City Mathematics Institute, Park City, UT, July,

2004; MAA Invited Address, Joint Mathematics Meetings, San Antonio, TX, January, 2006; James R. C. Leitzel Lecture, MathFest, Knoxville, TN, August, 2006.

Additional Information: Project NExT Fellow (blue dot 1996); website author: Mudd Math Fun Facts, 1999-; Visiting Assistant Professor, Cornell ORIE, 2000; Research Fellow, ZiF (Center for Interdisciplinary Research), Bielefeld, Germany, 2001-2002; Merten M. Hasse Prize, 2001; Member, MSRI, 2003; NSF Research Grant, 2003-2006; Henry L. Alder Award, 2004; Editorial Boards: Spectrum Book Series (2000–2003), *Math Horizons* (2003), *Amer. Math. Monthly* (2006–).

Selected Publications: 1. "Convergence of random walks on the circle generated by an irrational rotation", *Trans. Amer. Math. Soc.*, 350 (1998), no. 9, 3717–3741. MR1467478 (98k:60120); 2. with A. L. Gibbs, "On choosing and bounding probability metrics", *Internat. Statist. Rev.*, 70 (2002), 419–435; 3. with E. Peterson, "A polytopal generalization of Sperner's lemma", *J. Combin. Theory Ser. A*, 100 (2002), no. 1, 1–26. MR1932067 (2003h:52016); 4. with T. Prescott, "A constructive proof of Ky Fan's generalization of Tucker's lemma", *J. Combin. Theory Ser. A*, 111 (2005), no. 2, 257– 265. MR2156212 (2006d:55007); 5. with A. Bliss, "Lower bounds for simplicial covers and triangulations of cubes", *Discrete Comput. Geom.*, 33 (2005), no. 4, 669–686. MR2132296 (2005m:52025).

Statement: I believe the AMS exists to promote the research efforts of all its members who, in addition to those at R1 universities, also include research-active faculty at liberal arts colleges, regional universities, and community colleges. The mathematical community has made some progress in making funding, journals, MathSciNet, etc.,

available to faculty at all types of institutions, but we can do still more. Recent Ph.D.'s need our support as well, and the AMS can play a pivotal role in supporting the development of our junior colleagues. We should also recognize that if we desire public support for mathematics research and programs, then we need to shape public perceptions of our work. Our collective efforts to teach our students well can have an enormous impact on whether the next generation of national leaders and decision-makers are friendly or averse towards mathematics. To this end, we must promote the successful teaching of mathematics at all levels, through external public policy initiatives as well as internal efforts to increase awareness among research-active faculty about teaching-related issues in K-12 and college education. I am also a strong believer in promoting mathematics among the general public and raising math awareness in media and entertainment, and I would seek ways to further the role of the AMS in this critical effort. Finally, I hope we can continue to increase participation in AMS meetings by picking plenary speakers who have not only done outstanding research, but can communicate it well to a broad audience. If elected, I would be honored to serve to advance these efforts.

Nominating Committee

Thomas C. Hales



Andrew Mellon Professor of Mathematics, University of Pittsburgh. **Born:** June 4, 1958, San Antonio, Texas, USA.

Ph.D.: Princeton University, 1986. **AMS Committees:** Frank and Brennie Morgan Prize Committee, 2000–2003; AAAS Liaison Committee, 2006–2009.

Selected Addresses: Joint Mathematics Meetings invited lecture, Washington DC, 2000; Euler Lecturer 2000, Sansouci Castle, Berlin,

2000; International Congress of Mathematicians, Beijing, 2002; Joint Mathematics Meetings, Current Events session, Phoenix, 2004; IMA Public Lecture series, Minneapolis, 2005.

Additional Information: MAA Chauvenet Prize for outstanding exposition, 2003; Moore Prize for Applications of Interval Analysis, 2004; Past academic affiliations include Harvard, University of Chicago, University of Michigan, MSRI, and IAS.

Selected Publications: 1. "On the fundamental lemma for standard endoscopy: reduction to unit elements", *Canad. J. Math.*, **47** (1995), no. 5, 974–994. MR**1350645** (**96g:22023**); 2. "Cannonballs and honeycombs", *Notices Amer. Math. Soc.*, **47** (2000), no. 4, 440–449. MR**1745624** (**2000m:52027**); 3. "The honeycomb conjecture", *Discrete Comput. Geom.*, **25** (2001), no. 1, 1–22. MR**1797293** (**2002a:52020**); 4. "A proof of the Kepler conjecture", *Ann. of Math.*, (2) **162** (2005). MR**2179728**; 5. "What is motivic measure?" *Bull. Amer. Math. Soc.*, **42** (2005), no. 2, 119–135. MR**2133307**.

Statement: The vitality of the AMS depends on the enthusiastic contributions of many mathematicians. The Nominating Committee finds mathematicians to serve on the various committees of the AMS. If elected, I will work with the other members to produce a broad slate of mathematicians who will continue to provide a tradition of excellence in AMS publications, meetings, policies, and prizes.

Roger Howe



William Kenan Jr. Professor of Mathematics, Yale University.

Born: May 23, 1945, Chicago, Illinois, USA.

Ph.D.: University of California, Berkeley, 1969.

AMS Committees: Editor for Research Announcements, *Bulletin of AMS*, 1988–1991; Chair, AMSARG (ad hoc subcommittee of Committee on Education, to provide input to revision of NCTM Standards), 1997–1998; Commit-

tee on Science Policy, 1998–2004; Committee on Education, 2001–2006 (Chair 2001–2004).

Selected Addresses: AMS Summer Institute on Harmonic Analysis on Homogeneous Space, Williamstown, MA, 1972; International Congress of Mathematicians, Vancouver, BC, 1974; AMS Invited Address, Joint Mathematics Meetings, Denver, CO, 1983; Hermann Weyl Centennial Symposium, Durham, NC, 1987; Invited Address, AMS Centennial, Providence, RI, 1988.

Additional Information: Member, NCTM, MAA, AAAS, NAS; Guggenheim Fellow, 1982; Served as Advisor to *Crelle's Journal*, and on Editorial Boards of *Journal of Transformation Groups, Advances in Mathematics*, and *Journal of Functional Analysis*; AMS award for Distinguished Public Service, 2006.

Selected Publications: 1. with J. W. Helton, "Traces of commutators of integral operators", *Acta Math.*, **135** (1975), no. 3–4, 271–305. MR**0438188 (55 #11106)**; 2. "Kirillov theory for compact *p*-adic groups", *Pacific Journal*, **73** (1977), no. 2, 365–381. MR**0579176 (58 #28314)**; 3. "Theta series and invariant theory", *Proc. Sympos. Pure Math.*, **33**, American Mathematical Society, (1979), 275–286. MR**0546602 (81f:22034)**; 4. with C. Moore, "Asymptotic properties of unitary representations", *J. Funct. Anal.*, **32** (1979), no. 1, 72–96. MR**0533220 (80g:22017)**; 5. "Transcending classical invariant theory", *Journal of American Mathematical Society*, **2** (1989), no. 3, 535–552. MR**0985172 (90k:22016)**.

Statement: To meet the manifold challenges facing the mathematical community, the Society needs to draw on the energies and talents of its members, to serve in many different capacities. The Nominating Committee plays a key role in matching people with tasks. It must cast its nets wide to identify people of all types and in all stages of their careers who can advance the interests of mathematics. I plan if elected to supplement my own knowledge by extensive consultation in order to find people who can keep the Society moving forward.

David Manderscheid



Professor and Chair, Department of Mathematics, University of Iowa.

Born: March 7, 1955, Redwood City, California, USA.

Ph.D.: Yale University, 1981.

AMS Committees: AMS Representative to AMS-MAA Committee on Research in Undergraduate Mathematics Education, 2001–2004.

Selected Addresses: AMS Spe-

cial Sessions: New Orleans, 1986; Newark, 1987; Orlando, 1996; College Park, 1997; Washington DC and Hong Kong, 2000; Madison, 2002; San Antonio, 2006.

Additional Information: NSF Mathematical Sciences Postdoctoral Fellowship, 1985-1988; Member, MSRI, 1988; Member, Institute for Advanced Study, 1988-1989; Member, MSRI, 1995; Organizer, AMS Special Session, Theta Correspondences and Automorphic Forms, Iowa City, 1996; Visiting Professor, Université Paris (Denis Diderot), 2001; Co-organizer, AMS-NSF Conference on Mentoring in Mathematics, 2004; Presidential Award for Excellence in Science Mathematics and Engineering Mentoring to the Department of Mathematics at the University of Iowa from NSF and the White House, 2005; Recognition of the Department of Mathematics at the University of Iowa from the AMS Committee on the Profession, 2006; Co-organizer, Leadership Workshop, Finding and Keeping Diverse Graduate Students in the Mathematical Sciences, American Institute of Mathematics, 2006.

Selected Publications: 1. "Supercuspidal duality for the two-fold cover of SL_2 and the split O_3 ", *American Journal of Mathematics*, **107** (1985), no. 6, 1305–1323. MR**0815764** (**87e:22040**); 2. with P. Kutzko, "On intertwining operators of $GL_N(F)$, *F* a nonarchimedean local field", *Duke Journal of Mathematics*, **57** (1988), no. 1, 275–294. MR**0952235** (**90c:22054**); 3. "Supercuspidal representations and the theta correspondence. II. SL(2) and the anisotropic O(3)", *Trans. Amer. Math. Soc.*, **336** (1993), no. 2, 805–816. MR**1099354** (**94j:22019b**); 4. "Quadratic base change for *p*-adic SL(2) as a theta correspondence. I. Occurrence", *Proc. Amer. Math. Soc.*, **127** (1999), no. 5, 1281–1288. MR**1616649** (**99j:22026**); 5. "Waldspurger's involution and types", *Journal of the London Mathematical Society*, **70** (2004), no. 3, 567–586. MR**2096864** (**2005j:11037**).

Statement: The mission of the AMS has broadened beyond the promotion of mathematical research and scholarship. It now includes strengthening mathematics education and fostering public appreciation of the role of mathematics in our world. With this broadening, the Nominating Committee plays a critical role in determining the direction and tenor of the Society. I would bring to the Committee a commitment to excellence in mathematics research and scholarship, as they are the core of our profession. I would also bring a commitment to the broader mission of the Society. I would work with the committee to identify candidates who can further the mission of the AMS in all its aspects. I would make sure that we identify candidates from a broad spectrum of diverse backgrounds. A key criterion for me in this process would be that candidates be forward thinking while appreciating the many current strengths of the Society.

John E. McCarthy



Professor of Mathematics, Washington University, St. Louis.

Born: January 20, 1964, London, U.K.

Ph.D.: University of California at Berkeley, 1989.

AMS Offices: Member at Large of the Council, 2003–2006.

AMS Committees: Committee on Publications, 2003–2006.

Selected Addresses: Conference on Function Theory, Dublin, August, 2004; Wabash Modern Analy-

sis Conference, Indianapolis, September, 2004; Special Session on "Complex and Functional analysis", Joint Mathematics Meetings, Atlanta, January, 2005; Special Session on "Function spaces and their operators", joint meeting of AMS, DMV and OMG, Mainz, June, 2005; North British Functional Analysis Seminar, Newcastle, April, 2006;

Selected Publications: 1. "Common range of co-analytic Toeplitz operators", *Journal of the American Mathematical Society*, **3** (1990), No. 4, 793–799. MR1065054 (91f:47041); 2. with Liming Yang, "Subnormal operators and quadrature domains", *Advances in Mathematics*, 127 (1997), No. 1, 52–72. MR1445362 (98i:47019); 3. with Jim Agler, "Norm preserving extensions of holomorphic functions from subvarieties of the bidisk", *Annals of Mathematics*, 157 (2003), No. 1, 289–312. MR1954268 (2003j:47016); 4. "Hilbert spaces of Dirichlet series and their multipliers", *Transactions of the American Mathematical Society*, 356 (2004), No. 3, 881–893. MR1984460 (2004j:30006); 5. with Jim Agler, "Distinguished varieties", *Acta Mathematica*, Vol. 194 (2005), 133–153.

Statement: The American Mathematical Society has been extremely successful in supporting mathematics, primarily by organizing meetings, and by providing a high quality, reasonably priced, ethical publishing service. Running the Society, as I learned when I was a Council member, requires huge amounts of effort, much of it put in voluntarily by members and officers on the various committees of the Society. If elected, I shall seek to help the Nominating Committee find energetic and enthusiastic individuals from all over the Society to continue the good work that has been done since 1888.

Hema Srinivasan



Professor, University of Missouri. **Born:** May 11, 1959.

Ph.D.: Brandeis University, 1986. **AMS Committees:** Committee on Meetings and Conferences, 2000–2003; Summer Research Conferences Committee, 2000– 2004.

Selected Addresses: Commutative algebra, Representation theory and combinatorics, conference in honor of Professor David Buchsbaum, Boston, 1997; Centennial

Celebration, Nebraska, 2000; International Conference in Algebra and Geometry, Hyderabad, India, 2001; International Conference on Commutative Algebra, Lisbon, Portugal, 2003; AMS Special Sessions in the International Meeting in Germany, 2005; 6th International AMS-SMM Meeting in Houston, 2004 and Joint Mathematics Meetings, 2005–2006; MAGIC 2005 Midwest Algebra Conference, Notre Dame, October, 2005.

Additional Information: Organized AMS special sessions in Columbia, MO, 1996, Washington DC, 2000, Montreal, 1997 and 2002, and Bangalore, India, 2003; Member of AWM.

Selected Publications: 1. "Algebra structures on some canonical resolutions", *J. Algebra*, **122** (1989), no. 1, 150–187. MR0994942 (90g:13028); 2. with S. Cutkosky, "An intrinsic criterion for isomorphism of singularities", *Amer. J. Math.*, **115** (1993), no. 4, 789–821. MR1231147 (94h:14005); 3. "Decomposition formulas for Pfaffians", *J. Algebra*, **163** (1994), no. 2, 312–334. MR1262707 (95a:13019); 4. with J. Herzog, "Bounds for multiplicities", *Trans. Amer. Math. Soc.*, **350** (1998), no. 7, 2879–2902. MR1458304 (99g:13033); 5. with A. Iarrobino, "Artinian Gorenstein algebras of embedding dimension four: components of \mathbb{P} Gor(*H*) for *H*=(1,4,7,...,1)", *J. Pure Appl. Algebra* **201** (2005), no. 1–3, 62–96. MR2158748.

Statement: AMS continues to play an important role in promoting mathematical research, the profession and the interests of mathematicians. This is not limited to journals, conferences and meetings but also has significant components in education by nurturing future mathematicians and scientists, enhancing public perception of mathematics and influencing public policy affecting the profession. In order to do all of these, it draws upon the considerable talent and dedication of its diverse membership. We have among us many energetic, enthusiastic and imaginative mathematicians whose ideas and expertise will help the mission of AMS. As a member of the Nominating Committee, I will do my best in identifying and engaging members in service to the society.

William Yslas Vélez



Professor and University Distinguished Professor, University of Arizona.

Born: January 15, 1947, Tucson, Arizona.

Ph.D.: University of Arizona, 1975.

AMS Committees: Committee on Committees, 1990–1992 and 1993–1995; Committee on Meetings and Conferences, 1993–1995; Committee to Select the Winner of the Award for Public Service,

2001-2006.

Additional Information: Program Officer, Algebra and Number Theory Program, National Science Foundation, 1992–1993; President's Award for Excellence in Science, Mathematics and Engineering Mentoring Program, Washington, DC, September, 1997; Founding member and pastpresident, Society for the Advancement of Chicanos and Native Americans in Science; James Leitzel Lecturer, MAA Summer Math Fest, August, 2005.

Selected Publications: 1. "The factorization of *p* in $Q(a^{1/pk})$ and the genus field of $Q(a^{1/n})$ ", Tokyo Journal of Mathematics, 11, No. 1 (1988), 1-19. MR0947943 (89m:11100); 2. with E. Jacobson, "Fields arithmetically equivalent to a radical extension of the rationals", Journal of Number Theory, 35, No. 31 (1990), 227-246. MR1062333 (92b:11081); 3. with J. Watkins, "The research mathematician as story teller", Contemporary Issues in Mathematics Education, Mathematical Sciences Research Institute Publications, 36 (Estela A. Gavosto, Steven G. Krantz, and Villiam McCallum, eds.), Cambridge University Press (1999), 45-56; 4. "The invisible minorities in mathematics", Mathematicians and Education Reform Forum, Special Issue, 12, No. 3 (2000), 3-7; 5. "Not business as usual", Opinion Piece, Notices of the American Mathematical Society (May 2003), 533.

Statement: The function of this committee is to nominate members from the AMS to serve the needs of the society and of the mathematical community. AMS should play a vital role in promoting, not only the importance of mathematical research, but also the importance of maintaining a vibrant mathematical education at the undergraduate and graduate level. The Nominating Committee should have a broad knowledge of the mathematical activities of its members if it is to effectively provide candidates to fill the diverse needs of the society.

Editorial Boards Committee

Eric Bedford



Professor of Mathematics, Indiana University at Bloomington.

Born: December 23, 1947, Salt Lake City, Utah.

Ph.D.: University of Michigan, 1974.

AMS Committees: Committee to Select Hour Speakers for Central Section Meetings, 1983–1985; Committee on Committees, 1995–1997; Editorial Boards Committee, 1997–2000; Proceedings Editorial Committee, 1992–2006

(Managing Editor, 2001-2006).

Selected Addresses: Invited Address, Baton Rouge AMS meeting, September, 1982; Invited Address, All-Union Conference on Complex Analysis, Tashkent, former USSR, June, 1989; International Congress of Mathematicians, 1990.

Additional Information: Sloan Foundation Fellow, 1979–1981; Editorial Boards: Indiana University Mathematics Journal, 1986–; Journal of Geometric Analysis, 1989–2002; Mathematical Physics, Analysis and Geometry, 2000–.

Selected Publications: 1. with B. A. Taylor, "The Dirichlet problem for a complex Monge-Ampere equation", *Invent. Math.*, **37** (1976), no. 1, 1–44. MR**0445006 (56 #3351); 2.** with B. A. Taylor, "A new capacity for plurisubharmonic functions", *Acta Math.* **149** (1982), no. 1-2, 1–41. MR**0674165 (84d:32024)**; 3. with W. Klingenberg Jr., "On the envelope of holomorphy of a 2-sphere in C²", *J. Amer. Math. Soc.*, **4** (1991), no. 3, 623–646. MR**1094437** (**92j:32034**); 4. with John Smillie, "Polynomial diffeomorphisms of C² VI. Connectivity of J", *Ann. of Math.* (2) **148** (1998), no. 2, 695–735. MR**1668567 (2000b:32040)**; 5. with John Smillie, "Real polynomial diffeomorphisms with maximal entropy: Tangencies", *Ann. of Math.* (2) **160** (2004), no. 1, 1–26. MR**2119716 (2005k:37089)**.

Statement: The publication of books and journals is an important activity of the AMS, and the success of the journals and book series depends largely on the editorial boards that run them. There is a broad diversity of mathematicians to choose from, and it is the job of the EBC to find people who will best carry out the missions of the various book series and journals.

Niky Kamran



James McGill Professor of Mathematics, McGill University.

Born: May 22, 1959, Brussels, Belgium.

Ph.D.: University of Waterloo, 1984.

Selected Addresses: Distinguished Lectures in Nonlinear Mathematics, Los Alamos National Laboratory and University of New Mexico, 1992; CBMS-NSF lecture series, Howard University, Washington, 2000; Invited Address,

AMS Sectional Meeting, Northeastern Section, Montreal, 2002.

Additional Information: Andre Aisenstadt Prize, Centre de Recherches Mathématiques, 1991; Editor-in-Chief, *Canadian Journal of Mathematics*, 2001–2007; Fellow of the Royal Society of Canada, 2002–; Editorial Board Member, *Symmetry, Integrability and Geometry: Methods and Applications (SIGMA)*, 2005–; Killam Fellow, Canada Council for the Arts, 2006–2008.

Selected Publications: 1. with K. Tenenblat, "Laplace transformation in higher dimensions", Duke Math. J. 84 (1996), no. 1, 237-266. MR1394755 (97k:58181); 2. with I. M. Anderson, "The variational bicomplex for hyperbolic second-order scalar partial differential equations in the plane", Duke Math. J. 87 (1997), no. 2, 265-319. MR1443529 (98e:58183); 3. with R. Milson and P. J. Olver, "Invariant modules and the reduction of nonlinear partial differential equations to dynamical systems", Adv. Math. 156 (2000), no. 2, 286-319. MR1808246 (2001m:58078); 4. Selected Topics in the Geometrical Study of Differential Equations, CBMS Regional Conference Series in Mathematics, vol. 96. Published for the Conference Board of the Mathematical Sciences, Washington, DC, by the American Mathematical Society, Providence, RI (2002). MR1908466 (2003g:58061); 5. with F. Finster, J. Smoller and S.-T. Yau, "An integral spectral representation of the propagator for the wave equation in the Kerr geometry", Comm. Math. Phys. 260 (2005), no. 2, 257-298. MR2177321.

Statement: The Editorial Boards of the AMS are playing a key role in ensuring that the standards of excellence which have built the outstanding reputation of the AMS publications are maintained. As a member of the Editorial Boards Committee, I will do my best to identify and recommend individuals whose research expertise, breadth and organizational skills will make them assets to their respective Editorial Boards. I also hope to use my experience as outgoing Editor-in-Chief of the Canadian Journal of Mathematics to work with my colleagues on the Editorial Boards Committee so that we can assist the various AMS Editorial Boards in their efforts to function even more efficiently.

Peter Kuchment



Professor, Mathematics Department, Texas A&M University.

Born: April 9, 1949, Chernovtsy, USSR.

Ph.D.: Kharkov State University, USSR, 1973.

AMS Committees: Meetings and Conferences, 2000–2001; Education, 2000–2003.

Selected Addresses: Plenary address, 3rd International Congress of ISAAC (Internat. Soc. Anal. Appl. Comp.), Berlin, August, 2001; In-

vited Address, AMS Meeting, Binghamton, NY, October, 2003; Invited series of lectures, Nevanlinna Institute, Helsinki, May, 2004; Invited lecture, AMS Short Course on Radon Transform and Applications to Inverse Problems, Joint Mathematics Meetings, Atlanta, GA, January 5–8, 2005; Invited series of lectures, Seoul National University, March, 2006.

Additional Information: Doctor of Science, Mathematics Institute of Ukrainian Acad. Sci., Kiev, Ukraine, 1983; Member, Editorial Board, *Bulletin of the AMS*, since 2005; editor of four AMS volumes; organizer of four Joint Summer Research Conferences.

Selected Publications: 1. Floquet Theory For Partial Differential Equations, Birkhäuser Verlag, Basel, 1993. MR1232660 (94h:35002); 2. with Y. Pinchover, "Integral representations and Liouville theorems for solutions of periodic elliptic equations", J. Funct. Anal. 181 (2001), no. 2, 402-446. MR1821702 (2001m:35067); 3. with S. Levendorskii, "On the structure of spectra of periodic elliptic operators", Trans. AMS, 354 (2002), no. 2, 537-569. MR1862558 (2002g:35163); 4. with Y. Xu, L. Wang, and G. Ambartsoumian, "Reconstructions in limited view thermoacoustic tomography", Medical Physics 31 (4) (2004), 724-733; 5. Generalized transforms of radon type and their applications, in The Radon Transform, Inverse Problems, and Tomography, Proc. Symp. Appl. Math., vol. 63, AMS, Providence, RI, 2006, pp. 67-91. MR2208237.

Statement: The AMS has done a wonderful job publishing first rate journals and research monographs, as well as educational, historical, and popular mathematics materials. If elected, I will do my best to help in appointing the most able editorial members, who could advance further the quality of AMS publications and make them even more attractive to the authors and readers.

Irena Swanson



Professor, Reed College, Portland, Oregon.

Born: January 26, 1965, Maribor, Slovenia.

Ph.D.: Purdue University, 1992. **AMS Committees:** Western Section Program Committee, 2002 and 2003 (chair, 2003).

Selected Addresses: Workshop on "Commutative Algebra: Local and Birational Theory" at Mathematical Sciences Research Institute, Berkeley, December, 2002,

"Computing instanton numbers of curve singularities"; International Conference on Commutative Algebra and Combinatorics in Allahabad, India, December, 2003, "Primary decompositions", three expository lectures in the school part; School on Commutative Algebra and Interactions with Algebraic Geometry and Combinatorics, Trieste, Italy, June, 2004, invited talk, "Associated primes of local cohomology modules and of Frobenius powers"; AMS conference in Eugene, Oregon, November, 2005, special session in commutative algebra, invited talk, "Adjoints of ideals"; International conference on commutative algebra, Hanoi, Vietnam, January, 2006, invited talk, "Adjoints of ideals".

Additional Information: NSF grants, 1993–2005; Moderator of the commutative algebra section of Mathematics ArXiv (electronic archives of mathematics papers), 2002-; Editorial board of the journal *Communications in Algebra*, 2003-;

Selected Publications: 1. "On the embedded primes of the Mayr-Meyer ideals", *J. Algebra*, **275** (2004), 143-190. MR**2047444 (2005b:13005)**; 2. with A. Singh, "Associated primes of local cohomology modules and of Frobenius powers", *International Mathematics Research Notices*, **30** (2004), 1703-1733. MR**2058025 (2005d:13030)**; 3. with E. Gasparim, "Computing instanton numbers of curve singularities", *Journal of Symbolic Computation*, **40** (2005), no. 2, 965-978. MR**2167678 (2006f:14027)**; 4. with S. Hermiller, "Computations with Frobenius powers", *Journal of Experimental Mathematics*, **14** (2005), no. 2, 161-173. MR**2169520**; 5. with Craig Huneke, *Integral Closures of Ideals, Rings, and Modules*, Cambridge University Press, to appear.

Statement: One of the primary roles of the AMS is the dissemination of mathematical progress through publications. It is important that the publications be of high quality and be readily available. As far as the quality is concerned, much depends on the editorial board: the members need to be excellent mathematicians, fair and wellorganized persons, and be representative of the diverse mathematical research community.