# Biographies of Candidates 2002

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. A candidate 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 her or his research papers.

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 of Mathematical Statistics (IMS); International Mathematical Union (IMU); London Mathematical Society (LMS); Mathematical Association of America (MAA); 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); Operations Research Society of America (ORSA); Society for Industrial and Applied Mathematics (SIAM); The Institute of Management Sciences (TIMS).

Each candidate had the opportunity to supply a photograph to accompany her or his biographical information. A candidate with an asterisk (*) beside her or his name was nominated in response to a petition.

Vice President

M. Salah Baouendi
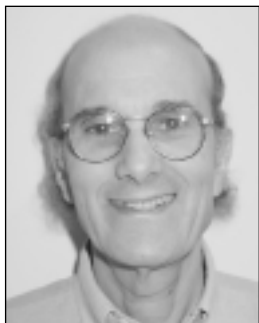
Professor of Mathematics, University of California, San Diego.
Born: October 12, 1937, Tunis, Tunisia.
Ph.D.: University of Paris, 1967.
AMS Offices: Member at Large of the Council, 1989–1995.
AMS Committees: Committee to Select Hour Speakers for Central Sectional Meetings, 1981–1982 (chair, 1982); Nominating Committee, 1986–1988; *Contemporary Mathematics* Editorial Board, 1986–1988; Agenda and Budget Committee, 1986–1993; AMS Representative, *American Journal of Mathematics*, 1988–1993 (chair, 1989–1993); Committee on Committees, 1989–1994; Strategic Planning Task Force, 1990–1991; Executive Committee of the Council, 1990–1993; Long Range Planning Committee, 1991–1992 (chair, 1992); Membership Committee, 1991–1993; Nominating Committee of the ECBT, 1993; Committee on the Profession, 1993–1999 (chair, 1993–1995); Rochester Task Force, 1994–1995; Steele Prize Committee, 2001–; Books and Journal Donations Steering Committee, 2001–.

Selected Addresses: Séminaire Bourbaki, 1965; Invited Address, International Congress of Mathematicians, Vancouver, 1974; AMS Invited Address, Austin, November 1981; Invited Speaker, Special Year in Several Complex Variables, MSRI, 1995; Invited Speaker, École Polytechnique, 1991, 1994, 2002.

Additional Information: Head, Department of Mathematics, Purdue University, 1980–1987; *Coeditor*: *Communications in Partial Differential Equations*, 1975–1985; *American Journal of Mathematics*, 1988–1993; *Mathematical Research Letters*, 1994–. Board of Governors, Institute for Mathematics and its Applications, University of Minnesota, 1988–1991 (chair, 1991); Scientific Advisory Committee, Centre de Mathematiques, École Polytechnique, France, 1989–1993 (chair); U.S. Delegate, IMU General Assembly, Dresden, 1998, and Shanghai, 2002.

Selected Publications: 1. with C. Goulaouic, Cauchy problems with characteristic initial hypersurface, *Comm. Pure Appl. Math.* **26** (1973), 455–475. MR **49**:3296; 2. with H. Jacobowitz and F. Trèves, On the analyticity of CR mappings, *Ann. of Math. (2)* **122** (1985), 365–400. MR **87f**:32044; 3. with P. Ebenfelt and L. Rothschild, Algebraicity of holomorphic mappings between real algebraic sets in C^n, *Acta Math.* **177** (1996), 225–273. MR **99b**:32030; 4. with P. Ebenfelt and L. Rothschild, *Real Submanifolds in Complex Space and Their Mappings*, Princeton Mathe-

matical Series, vol. 47, Princeton University Press, Princeton, NJ, 1999; 5. with P. Ebenfelt and L. Rothschild, Convergence and finite determination of formal CR mappings, *J. Amer. Math. Soc.* **13** (2000), 697–723. MR **2001h:**32063.

Statement: The American Mathematical Society should continue to play a fundamental role in maintaining the health of the mathematical enterprise in the U.S. and throughout the world. This role has many different important aspects.

First, the Society must continue to promote excellence in research by staying in the forefront of publication of affordable, high-quality journals and books at all levels, sponsoring and encouraging scientific meetings and conferences, and facilitating the rapid communication and dissemination of new mathematical research around the globe.

Second, the Society must help the profession continue to attract the most talented young people from a wide variety of backgrounds by increasing and promoting their career opportunities at all levels.

Third, in collaboration with other scientific societies, the AMS should continue to play an active role in public awareness, both with government agencies as well as with the public at large.

Finally, the Society must work to ensure that the profession maintains the highest level of integrity and accountability.

Barbara L. Osofsky*

Professor of Mathematics, Rutgers University, New Brunswick.
Born: August 4, 1937, Beacon, New York.
Ph.D.: Rutgers University, 1964.
AMS Committees: Committee on Publication of Regional Conference Lectures, 1974; *Proceedings* Editorial Committee (ex officio member of AMS Council), 1974–1977 (managing editor, 1976–1977); *Notices:* Advisory Committee on Editorial Policy, 1976; Editorial Board, 1977; Editorial Committee, 1978–1980; Committee on Principles and Procedures, 1976–1977; Committee on Publication Problems, 1977; Committee on the Agenda, 1977–1978; Nominating Committee, 1978–1979; Program Committee for National Meetings, 1978–1980; Short Course Subcommittee, 1978–1991; AMS-MAA-SIAM Joint Projects Committee for Mathematics, 1982; Committee on Academic Freedom, Tenure, and Employment Security, 1988–1991 (chair, 1989–1991). *AMS-MAA Joint Program Committees:* San Francisco Meeting, January 1995; Orlando Meeting, January 1996; Seattle MathFest, August 1996 (chair); Nominating Committee, 1997–1999.

Selected Addresses: AMS Invited Address, Dallas, January 1973; MAA Invited Address, Atlanta, January 1978; MAA Invited Address, Albany, August 1983; AMS

Special Session on Ring Theory, Columbus, August 1990; AMS Special Session on Rings and Representations, Philadelphia, October 1991.

Additional Information: NSF Postdoctoral Fellowship, 1967–1968; *CBMS:* Member at Large, 1973–1975; Board of Trustees, 1980–1982 (chair, 1981–1982); *MAA:* New Jersey Sectional Governor, 1994–1996; First Vice President, 2000–2002; Member: AMS, AWM, MAA.

Selected Publications: 1. *Homological Dimensions of Modules*, CBMS Regional Conf. Ser. in Math., no. 12, Amer. Math. Soc., Providence, RI, 1973. MR **56:**5525; 2. Projective dimension of "nice" directed unions, *J. Pure Appl. Algebra* **13** (1978), 179–219. MR **81d:**16019; 3. with P. Smith, Cyclic modules whose quotients have all complement submodules direct summands, *J. Algebra* **139** (1991), 342–354. MR **92f:**16030; 4. Constructing nonstandard uniserial modules over valuation domains, *Azumaya Algebras, Actions, and Modules*, Contemp. Math., vol. 124, Amer. Math. Soc., Providence, RI, 1992, pp. 151–164. MR **93d:**13006 (see also MR **92c:**13022); 5. Projective dimension is a lattice invariant, *J. Pure Appl. Algebra* **161** (2001), 205–217. MR **2002f:**13030.

Statement: Servicing its members' needs is a prime function of any professional organization. I would like to see the AMS make a priority-one effort to serve all of its members. Consider access to MathSciNet. Currently, that invaluable service is completely divorced from membership in the AMS. If any mathematician, AMS member or not, is employed by or has Internet access through an institution or consortium that subscribes to MathSciNet, he or she has complete access. Presently there are no individual subscriptions. For all practical purposes MathSciNet is unavailable to an AMS member who is self-employed, unemployed, or is affiliated with an institution that never has subscribed and in all likelihood never will subscribe. Surely the AMS can set up a method whereby such members can get access to MathSciNet at a reasonable cost. Are there really a large number of institutional subscribers who would drop their subscriptions to MathSciNet, expecting their employees, students, and visitors to pay for this service? Would it be so bad if some currently unaffiliated mathematicians who do not get MathSciNet at work joined us as members so they could access MathSciNet?

Karen Vogtmann

Professor of Mathematics, Cornell University.
Born: July 13, 1949, Pittsburg, California.
Ph.D.: University of California, Berkeley, 1977.
AMS Offices: Member at Large of the Council, 1997–2002.
AMS Committees: Centennial Fellowships Committee, 1989–1990 (chair, 1990); Committee on Meetings and Conferences, 1997–(chair, 2000–); *Bulletin* (New Series) Editorial Committee, 1997–2000 (associate editor, Research-

Expository Surveys); Executive Committee, 1999–; Interim Committee on the Young Scholars Program, 2000–2002; Nominating Committee of the ECBT, 2000, 2002; Long Range Planning Committee, 2000–2001 (chair, 2001); Agenda and Budget Committee, 2002.

Selected Addresses: AMS Invited Address, Salt Lake City, August 1987; Recent Developments in Topology, Princeton, 1995; Geometric Group Theory, Crete, Greece, 1996; Geometric and Topological Aspects of Group Theory, MSRI, 2000; Plenary Address, Geometric and Combinatorial Group Theory, Haifa, Israel, 2000.

Additional Information: Member, Institute for Advanced Study, 1980–1981; NSF Visiting Professorship for Women, 1984–1985; NSF Career Advancement Award, MSRI, 1989; Member, Institut des Hautes Études Scientifiques, 1993; Research Professor, MSRI, 1994; Professeur Invité, CMI, Université de Provence, Marseille, 2000. Member: AMS, AWM, EMS.

Selected Publications: 1. Spherical posets and homology stability for $O_{n,n}$, *Topology* **20** (1981), 119-132. MR **82d:**18016; 2. with M. Culler, Moduli of graphs and automorphisms of free groups, *Invent. Math.* **84** (1986), 91-119. MR **87f:**20048; 3. with A. Hatcher, Cerf theory for graphs, *J. London Math. Soc. (2)* **58** (1998), 633-655. MR **2000e:**20041; 4. with M. Bridson, The symmetries of outer space, *Duke Math. J.* **106** (2001), 391-409. MR **2001k:**20084; 5. with L. Billera and S. Holmes, Geometry of the space of phylogenetic trees, *Adv. in Appl. Math.* **27** (2001), 733-767.

Statement: The primary mission of the American Mathematical Society is to support research mathematics and the community of research mathematicians. It does this through its publications programs, meetings and conferences, employment services, and awarding of prizes and fellowships.

In recent years the AMS has taken new initiative in areas including Washington politics, public awareness of mathematics, and K–12 education. The efforts in Washington have had a significant impact on recent increases in federal funding for mathematics. The materials and ideas produced by the new Public Awareness Office, advertising the importance and pervasiveness of mathematics in modern life, are impressive and are being used in schools and the media.

The research community has a direct interest in improving K–12 education and should continue to investigate ways to support and to positively affect mathematics education in schools. The new AMS Young Scholars Program gives needed support to summer programs for talented high school students; historically, these have influenced the mathematics research community both by attracting talented students to research and by fostering respect for mathematical research in young people who ultimately choose other careers.

I strongly support all of these new initiatives, but I will also work to ensure that the AMS is not distracted from its basic functions and continues its efforts to ensure that mathematicians from underrepresented groups have equal access to mathematical ideas and equal opportunities for professional advancement.

Trustee
Carl Pomerance
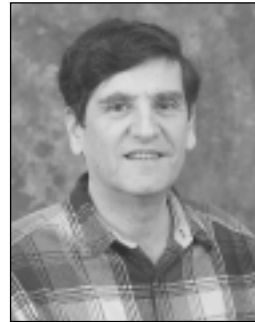
Member of Technical Staff, Bell Labs, Lucent Technologies.
Born: November 24, 1944, Joplin, Missouri.
Ph.D.: Harvard University, 1972.
AMS Offices: Member at Large of the Council, 1990–1992.
AMS Committees: Southeastern Section Program Committee, 1983–1984 (chair, 1984) and 1991–1992 (chair, 1992); AMS-MAA Joint Program Committee for the Atlanta Meeting, 1987; Nominating Committee, 1987–1988; *Mathematics of Computation* Editorial Committee, 1987–1997 (associate editor); *Transactions* and *Memoirs* Editorial Committee, 1988–1991; Committee on Committees, 1993–1995; Advisory Board, *What's Happening in the Mathematical Sciences*, 1993–1997; Student Mathematical Library Editorial Committee, 1998–; AMS-MAA Joint Program Committee for the San Antonio Meeting, 1998; Committee on Science Policy, 2000–2002; Committee to Select the Cole Prize in Number Theory, 2001.

Selected Addresses: MAA Pólya Lecturer, 1993–1995; International Congress of Mathematicians, Zurich, 1994; Lehigh Pitcher Lectures, 1996; MAA Hedrick Lectures, 1999; AMS Erdős Lecture, 2001.

Additional Information: MAA Chauvenet Prize, 1985; MAA Haimo Teaching Award, 1997; AMS Conant Prize, 2001.

Selected Publications: 1. Analysis and comparison of some integer factoring algorithms, *Computational Methods in Number Theory, Part I* (H. Lenstra and R. Tijdeman, eds.), Math. Centre Tracts, vol. 154, Math Centrum, Amsterdam, 1982, pp. 89-139. MR **84i:**10005; 2. with L. Adleman and R. Rumely, On distinguishing prime numbers from composite numbers, *Ann. of Math. (2)* **117** (1983), 173-206. MR **84e:**10008; 3. with J. Buhler and H. Lenstra, Factoring integers with the number field sieve, *The Development of the Number Field Sieve* (A. Lenstra and H. Lenstra, eds.), Lecture Notes in Math., vol. 1554, Springer-Verlag, Berlin, 1993, pp. 50-94; 4. with W. Alford and A. Granville, There are infinitely many Carmichael numbers, *Ann of Math. (2)* **139** (1994), 703-722. MR **95k:**11114; 5. with R. Crandall, *Prime Numbers: A Computational Perspective*, Springer-Verlag, New York, 2001. MR **2002a:**11007.

Statement: I enthusiastically support the efforts of the Society to encourage talented and diverse people to join our profession, to facilitate widespread access to vital research tools, to publish high-quality journals and books, to communicate effectively to nonmathematicians, and to run worthwhile and exciting meetings. To the fullest extent possible, I will let these thoughts guide me as a trustee.

Jean E. Taylor
Professor, Mathematics Department, Rutgers University.
Born: September 17, 1944, San Mateo, California.
Ph.D.: Princeton University, 1973.

AMS Offices: Member at Large of the Council, 1984–1988; Vice President, 1994–1996.

AMS Committees: Nominating Committee, 1977–1978; Committee on Committees, 1985–1986; Long Range Planning Committee, 1986–1987 (chair, 1987); Executive Committee of the Council, 1986–1988; Committee on Applied Mathematics, 1986–1989 (chair, 1987–1989); Committee on the Proposed Structure of the JPBM, 1987–1988 (chair); Agenda and Budget Committee, 1987–1988; Committee on NCTM Standards, 1989; Program Committee for National Meetings, 1989–1991 (chair, 1990–1991); AMS-MAA Joint Program Committee for the Orono Meeting, 1991; Steele Prize Committee, 1991–1995; Arnold Ross Lecture Series Committee, 1992–1996; Science Policy Committee, 1994–1995; AMS-SMM (Sociedad Matematica Mexicana) Joint Program Committee, 1995; Policy Review Committee for the Profession, 1996; Committee to Select the Winner of the Satter Prize, 2001–.

Selected Addresses: 16 Special Sessions, 1977–2002; AMS Invited Address, Wellesley, October 1977; AMS-MAA Invited Address, Boulder, August 1989; MAA Hedrick Lectures, Toronto, 1998; Plenary Lecturer, Mathematical Challenges Meeting, UCLA, 2000; AWM Emmy Noether Lecturer, Baltimore, 2003.

Additional Information: Alfred P. Sloan Foundation Fellow, 1976 and 1978; Joint Policy Board for Mathematics, 1994–1995; AAAS Board of Directors, 1995–1999; AAAS Program Committee, 1999–2002; *AWM*: Executive Committee (1998–2002), President (1999–2001); Board of Directors, International Mathematical Olympiad 2001 USA, 1998–2001; CBMS, 1999– (executive committee, 2001–2002); Board of Directors, Black Rock Forest Consortium, 2000–; D. Sc., Honoris Causa, Mount Holyoke College, 2001; Scientific Board, American Institute for Mathematics Research Conference Center, 2002–; Governing Board and Nominating Committee, Association of Princeton Graduate Alumni; Fellow: American Academy of Arts and Sciences, Association for Women in Science, American Association for the Advancement of Science; Member: AAAS, AWM, MAA, SIAM; former member of Materials Research Society, TMS.

Selected Publications: 1. The structure of singularities in soap-bubble-like and soap-film-like minimal surfaces, *Ann. of Math. (2)* **103** (1976), 489–539. MR **55:**1208a; 2. with E. Bombieri, Which distributions of matter diffract? An initial investigation. International workshop on aperiodic crystals (Les Houches, 1986), *J. Physique* **47** (1986), C3-19–C3-28. MR **88a:**52015; 3. with J. Cahn and C. Handwerker, Geometric models of crystal growth, *Acta Metall. Mater.* **40** (1992), 1443–1474; 4. Motion of curves by crystalline curvature, including triple junctions and boundary points, *Differential Geometry: Partial Differential Equations on Manifolds*, Proc. Sympos. Pure Math., vol. 54, Part 1, Amer. Math. Soc., Providence, RI, 1993, pp. 417–438. MR **94c:**53012; 5. with F. Almgren, Flat flow is motion by crystalline curvature for curves with crystalline energies, *J. Differential Geom.* **42** (1995), 1–22. MR **96h:**58034.

Statement: When I got my Ph.D., basic mathematics seemed to be more highly regarded among mathematicians; now, applied mathematics is on the ascendancy. All mathematics research is valuable: mathematics needs to interact with the rest of the world and also to move to its own internal music. Mathematicians must also attend to education, both for the next generation of mathematicians and for developing an appreciation for mathematics and its uses among the general population. Individual mathematicians, influenced but not driven by current enthusiasms, choose the problems that interest them the most; these can vary greatly at different points in their careers.

More than any other body, the American Mathematical Society attends to the health of mathematics, and the Board of Trustees of the AMS attends to the health of the AMS. I believe that my extensive experience within the AMS and on boards of other scientific and educational organizations (e.g., AAAS), together with my commitment to working on the leaky pipeline for women in mathematics, positions me well to serve the AMS in this vital capacity.

Member at Large of the Council

Karen M. Brucks

Chair and Associate Professor, Mathematical Sciences Department, University of Wisconsin-Milwaukee.

Born: February 1, 1957, Chicago, Illinois.

Ph.D.: The University of North Texas, 1988.

Selected Addresses: Six AMS Special Sessions, 1992–1999; *Invited Talks*: Dynamical Systems Symposium, Stefan Banach International Mathematical Center, Warsaw, Poland, June 1995; Real Analysis Symposium, Chattanooga, TN, June 1997; Workshop for Low-Dimensional Dynamics, University of Florida, November 2001.

Additional Information: Course Instructor, NSF-sponsored Summer Mathematics Program for Women, Carleton College, 1997, 1999, 2001; Six 1-hour lectures, 1-D Dynamics Summer School, Gyor, Hungary, July 1997; Fulbright Research Scholar, Eotvos Lorand University, Budapest, Hungary, fall 1997; AAUW American Fellowship Panel, 1997–2000; Advisory Board, UWM Women in Mathematics, Science, and Engineering Program, 2000–.

Selected Publications: 1. MSS sequences, colorings of necklaces, and periodic points of $f(z) = z^2 - 2$, *Adv. in Appl. Math.* **8** (1987), 434–445. MR **90c:**58083; 2. with M. Misiurewicz and C. Tresser, Monotonicity properties of the family of trapezoidal maps, *Comm. Math. Phys.* **137** (1991), 1–12. MR **92e:**58108; 3. with C. Tresser, A Farey tree organization of locking regions for simple circle maps, *Proc. Amer. Math. Soc.* **124** (1996), 637–647. MR **96d:**58037; 4. with Z. Buczolich, Trajectory of the turning point is dense for a co-σ-porous set of tent maps, *Fund. Math.* **165** (2000),

95–123. MR **2002a:**37051; 5. with J. Ringland and C. Tresser, An embedding of the Farey web in the parameter space of simple families of circle maps, *Phys. D.* **161** (2002), 142–162.
Statement: The goals and recommendations of the AMS National Policy Statement include: excellence in mathematical sciences research; connecting mathematics to problems in science, technology, and society; strengthening all levels of mathematics education; and communicating the nature of mathematics and its contributions to society. Moreover, the interdependency of research within the mathematical sciences, applications of mathematics to other disciplines, and the teaching of mathematics is affirmed in the policy statement.

Achieving these goals is a challenge members from academia, government, private industry/business, and the community collaboratively enjoy. As a member of the Council, I would bring my experiences at an urban research university to this challenge.

Carlos Castillo-Chávez

Professor of Biomathematics, Cornell University.
Born: March 29, 1952, Mexico City, Mexico.
Ph.D.: University of Wisconsin-Madison, 1984.
AMS Committees: AAAS Liaison Committee, 2002–.
Selected Addresses: Hollistier-Stier Distinguished Lecture Series Speaker, Washington State University, 1990; Invited Speaker, "The Role of Public Transportation on the Spread of Tuberculosis", AAAS, Medicine and Public Health, Special Session on The Mathematics of Epidemics and Disease, January 1998; Stoll Distinguished Lecture Series Speaker, Akron University, Ohio, 2001; Keynote Speaker, "Mathematics, Germs, Drugs, Disease, Globalization, and Politics", SACNAS National Conference, Phoenix, September 2001; Plenary Lecture Speaker, "Tuberculosis: Past, Current and Future Trends", Third International Conference on Mathematical Biology, Satellite Meeting for the International Congress of Mathematicians, Guangxi Province, P.R. China, August 2002.
Additional Information: *NSF and the Office of the President of the United States:* Presidential Faculty Fellowship, 1992; Presidential Award for Excellence in Science, Mathematics and Engineering Mentoring, 1997. Distinguished Alumni, University of Wisconsin at Stevens Point, 1999; Coordinated the establishment of the David Blackwell and Richard Tapia Distinguished Lecture Series in the Mathematical and Statistical Sciences at Cornell University (soon to be cosponsored by MSRI), 2000; Society for the Advancement of Chicanos and Native Americans in Science (SACNAS) Distinguished Scientist Award, 2001.
Selected Publications: 1. *Mathematical and Statistical Approaches to AIDS Epidemiology* (C. Castillo-Chávez, ed.), Lecture Notes in Biomathematics, vol. 83, Springer-Verlag, Berlin, 1989. MR **91k:**92022; 2. with S. Blythe, Scaling law of sexual activity, *Nature* **344** (1990), 202; 3. with W. Huang

and J. Li, On the existence of stable pair distributions, *J. Math. Biol.* **34** (1996), 413–441; 4. with F. Brauer, *Mathematical Models in Population Biology and Epidemiology*, Texts in Applied Mathematics, vol. 40, Springer-Verlag, New York, 2001; 5. with S. Blower, P. van den Driessche, D. Kirschner, and A.-A. Yakubu (eds.), *Mathematical Approaches for Emerging and Reemerging Infectious Diseases: Models, Methods, and Theory*, IMA volume 126, Springer-Verlag, Berlin, 2002.
Statement: As a member at large I will: (i) promote the fundamental role of mathematics in interdisciplinary research, (ii) work to make the AMS a more welcoming organization for women and underrepresented minorities, (iii) increase the support for undergraduate mathematics research, (iv) support the direct recognition of outstanding teachers and mentors by the AMS, and (v) enhance the involvement of the AMS in the "final" frontier, biology.

Susan M. Hermiller

Associate Professor of Mathematics, University of Nebraska-Lincoln.
Ph.D.: Cornell University, 1992.
AMS Committees: Short Course Subcommittee, 2002–.
Selected Addresses: AMS-IMS-SIAM Joint Summer Research Conference on Geometric Group Theory and Computer Science, South Hadley, July 1998; MSRI-CIMAT Conference on Gröbner Bases, Guanajuato, Mexico, February 1999; Symposium on Computation in Geometry and Group Theory, Warwick, England, July 1999; AMS Special Session on Geometric Group Theory, New Orleans, January 2001; AMS Special Session on Computational Group Theory, Hoboken, April 2001.
Additional Information: Alfred P. Sloan Foundation Doctoral Dissertation Fellowship, 1991–1992; Member, MSRI, 1992–1993 and fall 1998; NSF Postdoctoral Fellowship (International Program), 1993–1994; *Coorganizer:* Holiday Mathematics Symposium on Rewriting Techniques and Noncommutative Gröbner Bases, New Mexico State University, January 1997; Nebraska Conferences for Undergraduate Women in Mathematics, University of Nebraska-Lincoln, March 1999 and February 2000; Workshop on Gröbner Bases and Rewriting Techniques, Trento, Italy, June 1999; International Conference on Geometric and Combinatorial Methods in Group Theory and Semigroup Theory, University of Nebraska-Lincoln, May 2000.
Selected Publications: 1. with J. Meier, Algorithms and geometry for graph products of groups, *J. Algebra* **171** (1995), 230–257. MR **96a:**20052; 2. with J. Meier, Tame combings, almost convexity and rewriting systems for groups, *Math. Z.* **225** (1997), 263–276. MR **98i:**20036; 3. with X. Kramer and R. Laubenbacher, Monomial orderings, rewriting systems, and Gröbner bases for the commutator ideal of a free algebra, *J. Symbolic Comput.* **27** (1999), 133–141. MR **99m:**16040; 4. with J. Meier, Measuring the tameness of almost convex groups, *Trans. Amer. Math.*

Soc. **353** (2001), 943–962; 5. with J. Groves, Isoperimetric inequalities for soluble groups, *Geom. Dedicata* **88** (2001), 239–254.

Statement: The AMS has the primary role of furthering the mathematics profession and research in mathematics, through a wide variety of avenues. In direct promotion of research through organization of conferences and publications, the Society needs to work to keep up with electronic publication issues, and to ensure that its publications are widely accessible. In an economy that has faltered in the past year or two, there is increased importance for the AMS efforts to lobby for funding with government policy-makers, to increase public awareness of the value of mathematics, and to promote education and employment opportunities for young mathematicians. In addition to monitoring employment of new Ph.D.'s, we should also attempt to track Ph.D.'s several years past graduation to study their more permanent job status. We must also work to improve the representation of women and minorities in our profession.

The AMS serves as a forum for the discussion of many issues that arise in our profession. I would appreciate the opportunity to help advance the mission of our Society and contribute further to these discussions.

Henry B. Laufer

Vice President for Research, Renaissance Technologies Corporation.
Born: August 13, 1945, Brooklyn, New York.
Ph.D.: Princeton University, 1966.
Statement: I was a professor in the mathematics department at SUNY at Stony Brook until 1991. Then I left to join the financial world, where I now help to run a hedge fund. If elected, I would bring a different, nonacademic viewpoint to the Council. In particular, I feel that the Society should care much more about mathematicians in exchange for caring somewhat less about mathematics.

Brian Marcus

Research Staff Member, IBM Almaden Research Center.
Born: August 29, 1949, Los Angeles, California.
Ph.D.: University of California at Berkeley, 1975.
AMS Committees: Committee to Monitor Problems in Communication, 1993.
Selected Addresses: Principal Lecturer, Conference on Symbolic Dynamics, University of Maryland, 1986; Distinguished Lecturer Series, Center for Applied Mathematics, Cornell University, 1989; AMS Short Course on Coding Theory, January 1995;

Invited Plenary Lecture, IEEE International Symposium on Information Theory, 1995; AMS Short Course on Symbolic Dynamics, January 2002.
Additional Information: Six issued and five pending U.S. patents; Assistant/Associate Professor of Mathematics (with tenure), University of North Carolina-Chapel Hill, 1975–1985; Leonard G. Abraham Prize Paper Award, IEEE Communications Society, 1993; Elected IEEE Fellow, 1999; Consulting Associate Professor of Electrical Engineering, Stanford University, 2000–.
Selected Publications: 1. Ergodic properties of horocycle flows for surfaces of negative curvature, *Ann. of Math.* **105** (1977), 81–105. MR **56:**16696; 2. with D. Lind, *An Introduction to Symbolic Dynamics and Coding*, Cambridge University Press, Cambridge, 1995 (reprinted 1999). MR **97a:**58050; 3. with J. Ashley and S. Tuncel, The classification of one-sided Markov chains, *Ergodic Theory Dynam. Systems* **17** (1997), 269–295. MR **98k:**28021; 4. with J. Fan and R. Roth, Lossless sliding-block compression of constrained systems, *IEEE Trans. Inform. Theory* **46** (2000), 624–632; 5. with S. Tuncel, Resolving Markov chains onto Bernoulli shifts via positive polynomials, *Mem. Amer. Math. Soc.* **150** (2001), no. 710. MR **2001m:**37018.
Statement: If elected, I would bring to the AMS Council the voice of a mathematician who has broad experience in both academia and industry. Through this experience I have seen firsthand how industry can benefit from mathematics and how mathematical research can benefit from contact with applications. I also understand the difficulties faced by mathematicians in industry as well as the challenges that face our community in preparing mathematics students to succeed in both academic and industrial environments. I would try to use the influence of the AMS to increase interactions among academia, industry, and government as a means of strengthening mathematics research and education.

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.
Selected Addresses: Plenary Speaker, International Conference on Operator Theory, Timisoara, 1998; Colloquium, Brown University, 1999; AMS Special Session, Washington, DC, January 2000; Plenary Speaker, Southeastern Analysis Meeting, Athens, Georgia, 2001; Colloquium, Virginia Polytechnic Institute and State University, 2002.
Additional Information: *Organizer*: AMS Special Session on Hilbert Spaces of Analytic Functions, South Bend, March 1991; AMS Special Session on Holomorphic Spaces, San Antonio, January 1993; Cochair, Organizing Committee, MSRI program on Holomorphic Spaces, fall 1995. Member: AMS, Irish Mathematical Society, MAA.

Selected Publications: 1. Common range of co-analytic Toeplitz operators, *J. Amer. Math. Soc.* **3** (1990), 793–799. MR **91f:**47041; 2. How to give a good colloquium, *Canad. Math. Soc. Notes* **31** (1995), 3–4. Reprinted and distributed by the AMS; 3. with L. Yang, Subnormal operators and quadrature domains, *Adv. Math.* **127** (1997), 52–72. MR **98i:**47019; 4. with E. Backhaus and J. Fajans, Solving Poisson's equation with interior conditions, *J. Math. Phys.* **39** (1998), 6720–6729. MR **2000m:**82063; 5. with J. Agler, *Pick Interpolation and Hilbert Function Spaces*, Graduate Studies in Mathematics, vol. 44, Amer. Math. Soc., Providence, RI, 2002.

Statement: I love mathematics. Mathematics and its associated culture is vast, however, and the AMS should not seek to encompass it all. I believe the principal function of the AMS should be to support research in mathematics.

Although this statement of belief is simple, it has ramifications beyond the obvious ones of organizing meetings and attempting to obtain financial support for researchers. For example, research in mathematics is enhanced by the ready availability of research literature. It is therefore important that the AMS remain a major publisher of mathematics—both as a source of high-quality and reasonably priced journals and books and also as a moderating influence on commercial publishers of mathematics. Likewise, the AMS should pioneer paradigms of electronic journals that maximize benefit to the users rather than to the publishers.

I believe that the American Mathematical Society has done a good job of serving the interests of mathematics. If elected, I will strive to ensure that it continues to do so. What I lack in experience, I will make up for with enthusiasm.

David W. McLaughlin

Provost, New York University, and Professor of Mathematics and Neural Science, Courant Institute of Mathematical Sciences, New York University.
Born: October 11, 1944, Council Bluffs, Iowa.
Ph.D.: Indiana University, 1971.
AMS Committees: Mathematical Surveys and Monographs Editorial Committee, 1992–1994.
Selected Addresses: Plenary Address, SIAM Conference on Dynamical Systems, Snowbird, 1992; Invited Lecture, International Congress of Mathematicians, Zurich, 1994; IX David Alcaraz Spinola Lecture, University of Mexico, 1995; "Modelling the Visual Cortex", AAAS Annual Meeting, San Francisco, 2001; Plenary Lecture, 7th Latin American Workshop on Nonlinear Phenomena, Morales, Mexico, 2001.
Additional Information: Elected Fellow, American Academy of Arts & Sciences, 2000; Chair, SIAM Activity Group on Dynamical Systems, 2001; Member: AAAS, NAS, SIAM.
Selected Publications: 1. with H. Flaschka and M. Forest, Multiphase averaging and the inverse spectral solution of the Korteweg-de Vries equation, *Comm. Pure Appl. Math* **33** (1980), 739–784. MR **81k:**35142; 2. with N. Ercolani and M. Forest, Geometry of the modulational instability. III. Homoclinic orbits for the periodic sine-Gordon equation, *Phys. D* **43** (1990), 349–384. MR **92k:**35242; 3. with Y. Li, J. Shatah, and S. Wiggins, Persistent homoclinic orbits for a perturbed nonlinear Schrödinger equation, *Comm. Pure Appl. Math.* **49** (1996), 1175–1255. MR **98d:**35208; 4. with D. Cai, A. Majda, and E. Tabak, Special bifurcations in dispersive wave turbulence, Proc. Nat. Acad. Sci. U.S.A., vol. **96**, 1999, pp. 14216–14221; 5. with R. Shapley, M. Shelley, and J. Wielaard, A neuronal network model of the Macaque primary visual cortex. 1. Orientation tuning and dynamics in the input layer 4 C, Proc. Nat. Acad. Sci. U.S.A., vol. **97**, 2000, 14, pp. 8087–8092.

Statement: The AMS fosters excellence in research and education throughout mathematics, and it represents its members in these and other concerns of our profession. The primary focus of the Society should be upon research and education within our discipline.

At this turn of the century, the Society should also focus upon the fundamental role that mathematics can play in modern sciences, technology, and throughout society in that it can provide language, methods, and viewpoints toward the solution of complex interdisciplinary and multidisciplinary problems. In addition, today there are many other important and difficult issues which the AMS addresses, including federal support of basic research, postdoctoral and graduate education, conferences and institutes; undergraduate and graduate education; elementary and secondary school education; diversity within our community; human rights; opportunities within the profession; AMS meetings and their technical content; the perception of the discipline; and many more. It would be an honor to help address these issues as a Council member at large.

Yair N. Minsky

Associate Professor of Mathematics, SUNY at Stony Brook.
Born: November 9, 1962, Jerusalem, Israel.
Ph.D.: Princeton University, 1989.
Selected Addresses: "Geometry and Combinatorics of Curves on Surfaces", 1st Iberoamerican Congress on Geometry and Groups, Chile, January 1998; "Geometry, Topology and Dynamics in Hyperbolic Space", Japanese-American Frontiers of Science Symposium, Tsukuba, Japan, October 1999; "Classification and Rigidity Problems for Kleinian Groups", series of three talks, RIMS meeting on Kleinian Groups and Conformal Dynamics, Kyoto, Japan, October 1999; AMS Invited Address, Santa Barbara, March 2000; "Combinatorial and Geometrical Aspects of Hyperbolic 3-Manifolds", six lectures at the workshop on Kleinian Groups and Hyperbolic 3-Manifolds, University of Warwick, England, September 2001.
Additional Information: *Awards*: NSF Postdoctoral Fellow, 1992–1995; Alfred P. Sloan Foundation Research Fellow, 1995–1999; *Coorganizer*: Laminations and Foliations in

Dynamics, Geometry and Topology, Stony Brook, May 1998; Spaces of Kleinian Groups and Hyperbolic 3-Manifolds, Isaac Newton Institute for Mathematical Sciences, Cambridge, England, July–August 2003.

Selected Publications: 1. On rigidity, limit sets, and end invariants of hyperbolic 3-manifolds, *J. Amer. Math. Soc.* **7** (1994), 539–588. MR **94m:**57029; 2. with M. Lyubich, Laminations in holomorphic dynamics, *J. Differential Geom.* **47** (1997), 17–94. MR **98k:**58191; 3. The classification of punctured-torus groups, *Ann. of Math. (2)* **149** (1999), 559–626. MR **2000f:**30028; 4. with H. Masur, Geometry of the complex of curves. I. Hyperbolicity, *Invent. Math.* **138** (1999), 103–149. MR **2000i:**57027; 5. Bounded geometry for Kleinian groups, *Invent. Math.* **146** (2001), 143–192.

Statement: An AMS Regional Conference in Arcata in 1989 was my first intensive introduction to the communal spirit of research mathematics. Since then, AMS meetings and publications have played a large role in my development as an individual mathematician and as a member of the community, and I think they remain the major way in which the Society promotes high-quality research and education and communication among its members. Additionally, the AMS has been strongly involved in outreach, advocacy, and professional support for mathematicians. All of us should at some point take time from our research and educational activities to become involved in these important endeavors. Of particular interest to me are maintaining the excellent level of meetings, improving the interaction between pure and applied mathematics, and building on the Society's successes in online publishing and other services.

Paul J. Sally Jr.

Professor of Mathematics, University of Chicago.
Born: January 29, 1933, Boston, Massachusetts.
Ph.D.: Brandeis University, 1965.
AMS Offices: Member at Large of the Council, 1981–1983; Trustee, 1984–1993 (chair, 1987, 1992).
AMS Committees: Western Sectional Program Committee, 1980–1981; Committee on the Summer Institute on Applications of Group Theory in Physics and Mathematical Physics, 1982 (chair); Executive Committee, 1983; Committee on the Abuse of Subscriptions, 1984; Appeals Committee on Discounted Subscriptions, 1984–1993; Agenda and Budget Committee, 1986–1987 and 1992; Committee on Salaries, 1986–1987 and 1991–1992; Committee on the Recruitment of Young Mathematicians, 1986–1988; Committee on the Publication Program, 1986–1994; Executive Director Search Committee, 1987; Long Range Planning Committee, 1987 and 1992; Fellowship Policy Committee, 1988–1989; Audit Committee, 1989 and 1992; Liaison Committee on Education in Mathematics, 1989–1994 (chair); Committee on Science Policy, 1990–1992; Nominating Committee of the ECBT, 1993; Publications Committee, 1993; Arnold Ross Lecture Series Committee, 1992–2000 (chair, 1994–1998; consultant, 1999–2000).

Selected Addresses: AMS Invited Address, Columbus, March 1978; Distinguished Lecture Series: Emory University, University of Iowa, University of Maryland.

Additional Information: NSF Advisory Committee for Mathematical Sciences, 1977–1980; Mathematical Sciences Education Board (NAS), 1985–1987; U.S. Commission on Mathematics Instruction (NAS), 1986–1990; U.S. Steering Committee for the Third International Mathematics and Science Study, 1991–; AMS Distinguished Public Service Award, 2000; MAA Haimo Award for Distinguished University Teaching, 2002.

Selected Publications: 1. with L. Corwin and A. Moy, Degrees and formal degrees for division algebras and GL_n over a p-adic field, *Pacific J. Math.* **141** (1990), 21–45. MR **90k:**22025; 2. with M. Tadić, Induced representations and classifications for $GSp(2, F)$ and $Sp(2, F)$, *Mém. Soc. Math. France (N.S.)*, no. 52 (1993), 75–133. MR **94e:**22030; 3. with L. Corwin and A. Moy, Supercuspidal character formulas for GL_1, *Representation Theory and Harmonic Analysis* (K. I. Gross, D. St. P. Richards, and P. J. Sally Jr., eds.), Contemp. Math., vol. 191, Amer. Math. Soc., Providence, RI, 1995, pp. 1–11. MR **96m:**22037; 4. An introduction to p-adic fields, harmonic analysis and the representation theory of SL_2, *Lett. Math. Phys.* **46** (1998), 1–47. MR **99m:**22007; 5. with S. Debacker, Germs, characters, and the Fourier transforms of nilpotent orbits, *The Mathematical Legacy of Harish-Chandra* (R. Doran, V. S. Varadarajan, eds.), Proc. Sympos. Pure Math., vol. 68, Amer. Math. Soc., Providence, RI, 2000, pp. 191–221. MR **2001i:**22022.

Statement: The primary activities of the American Mathematical Society should be the promotion of research and the support of young mathematicians. The AMS plays a central role in both of these, and we should always be creative in our approach.

The publication program of the AMS is of central importance, both for the support of research and for the fiscal health of the Society. The publication program has been quite successful and must be monitored continually to ensure that it serves the profession in an effective way.

The AMS must find new ways to be involved in precollege education. The mathematics research community should collaborate with mathematics educators and school systems to aid, in a significant way, in the improvement of education in mathematics for schoolchildren. Without attempting to impose its own ideas, the mathematics research community can influence the direction of K–12 mathematics education in a very positive way.

Paul Zorn

Professor of Mathematics, St. Olaf College, Northfield, Minnesota.
Born: March 22, 1951, Neyoor, Madras, India.
Ph.D.: University of Washington, Seattle, 1981.
Selected Addresses: "The Future of Calculus", keynote talk in theme group, ICME-8, Seville, Spain, July 1996; "Technology in Tertiary Mathematics Education", Keynote Address, Conference on Technology in Mathematics Education at the Secondary and Tertiary Levels, Brock University, Ste.

Catharines, Ontario, June 1999, and Southwest University of Science and Technology, Mianyang, China, June 2001. *Mathematics Magazine* Morsels: Invited Address on the Mathematics in and History of *Mathematics Magazine*, the Virginia/Maryland/DC MAA Section meeting, Bowie, Maryland, April 2000, and East China Normal University, Shanghai, June 2001;"Algebra, Computer Algebra, and Mathematical Thinking", Second International Conference on the Teaching of Mathematics, Crete, Greece, July 2002.

Additional Information: MAA Allendoerfer Prize for Mathematical Expository Writing, for an article on the Bieberbach Conjecture, 1987; Editor, *What's Happening in the Mathematical Sciences*, 1994, 1996, and 1998; Editor, *Mathematics Magazine*, 1996–2000.

Selected Publications: 1. Analytic functionals and Bergman spaces, *Ann. Scuola Norm. Sup. Pisa Cl. Sci. (4)* **9** (1982), 365–404. MR **84d:**46057; 2. The Bieberbach conjecture, *Math. Mag.* **59** (1986), 131–148. MR **87k:**01044; 3. Be He Alive or Be He Dead? Bourbaki in Quebec; report on mathematical activities at ICME-7, Quebec, August 1992, *UME Trends*, December 1992; 4. with A. Ostebee, *Calculus from Graphical, Numerical, and Symbolic Points of View*, second edition, three-volume textbook on elementary calculus, Houghton Mifflin, Boston, 2001–2002.

Statement: Although the AMS properly emphasizes the promotion of mathematical research as its principal mission, other activities and concerns are also important, both in their own right and in maintaining our profession's vitality—and hence, indirectly, its success in research and other efforts. If elected a trustee, I hope to contribute to the AMS in two main areas: (i) promoting excellent undergraduate mathematics education, especially in preparation for graduate work; and (ii) communicating AMS activities and their importance to constituencies beyond the traditional AMS orbit, including the general public. Both of these interests are closely related to my own work and recent experience as an undergraduate teacher, mathematical expositor, and journal editor.

Nominating Committee

Francis Bonahon

Professor of Mathematics, University of Southern California.
Born: September 9, 1955, Tarbes, Hautes Pyrénées, France.
Ph.D.: University of Paris XI, Orsay, France, 1985.
AMS Offices: Member at Large of the Council, 1997–1999.
AMS Committees: Committee on Education, 1997–1999; Committee on Human Rights of Mathematicians, 1998–2000.
Selected Addresses: AMS Invited Address, Claremont, November 1988; Invited Address, International Congress of Mathematicians, Kyoto, 1990.
Additional Information: Alfred P. Sloan Foundation Fellow, 1987–1989; NSF Presidential Young Investigator, 1989–1994; Member: EMS, MAA, SMF.

Selected Publications: 1. Bouts des variétés hyperboliques de dimension 3, *Ann. of Math. (2)* **124** (1986), 71–158. MR **88c:**57013; 2. The geometry of Teichmüller space via geodesic currents, *Invent. Math.* **92** (1988), 139–162. MR **90a:**32025; 3. Geodesic laminations with transverse Hölder distributions, *Ann. Sci. École Norm. Sup. (4)* **30** (1997), 205–240. MR **98b:**57027; 4. A Schläfli-type formula for convex cores of hyperbolic 3-manifolds, *J. Differential Geom.* **50** (1998), 25–58. MR **2000j:**57049; 5. with Y. Sözen, The Weil-Petersson and Thurston symplectic forms, *Duke Math. J.* **108** (2001), 581–597. MR **2002c:**32023.

Statement: The selection of officers and committee members for the Society should fulfill two basic goals: action and representation. It is important to attract to the leadership of the Society talented and dedicated individuals who will energetically promote the cause of mathematics. It is equally important that the persons nominated offer a wide representation of the very diverse spectrum of the mathematical community. This second point serves a dual purpose: maintaining accountability of the Society to its membership, but also making the community better aware of what the AMS does (including what it does well). If elected, I intend to use these two principles to guide my work on the committee.

David Bressoud

DeWitt Wallace Professor of Mathematics, Macalester College.
Born: March 27, 1950, Bethlehem, Pennsylvania.
Ph.D.: Temple University, 1977.
AMS Offices: Member at Large of the Council, 1996–1998.
AMS Committees: Committee on Education, 1996–1998; Student Mathematical Library Editorial Board, 1998– (chair, 2002–); Math Camps Committee (set up Epsilon Fund), 1999.

Additional Information: Liaison from Committee on Education to MAA Committee on the Undergraduate Program in Mathematics, 1999; Member, College Board AP Calculus Committee, 1999– (chair 2002); MAA Beckenbach Book Prize, 2000.

Selected Publications: 1. *Factorization and Primality Testing*, Undergrad. Texts Math., Springer-Verlag, New York, 1989. MR **91e:**11150; 2. *Second Year Calculus from Celestial Mechanics to Special Relativity*, Springer-Verlag, New York, 1992; 3. *A Radical Approach to Real Analysis*, Classroom Resource Materials Ser., vol. 2, MAA, Washington, DC, 1994. MR **95d:**26002; 4. *Proofs and Confirmations: The Story of the Alternating Sign Matrix Conjecture*, MAA Spectrum, MAA, Washington, DC, and Cambridge University Press, Cambridge, UK, 1999. MR **2000i:**15002; 5. with S. Wagon, *A Course in Computational Number Theory*, Key College Publ., Emeryville, in cooperation with Springer-Verlag, New York, 2000. MR **2001f:**11200.

Statement: The AMS serves all mathematicians. I will work to include good candidates who are not at major research universities.

Constantine M. Dafermos

Professor, Division of Applied Mathematics, Brown University.

Born: May 26, 1941, Athens, Greece.
Ph.D.: Johns Hopkins University, 1967.
AMS Committees: AMS-SIAM Committee on Applied Mathematics, 1988-1989; AMS Representative, U.S. National Committee on Theoretical and Applied Mechanics, 1989-1996; AMS-SIAM Committee to Select the Winner of the Birkhoff Prize for 1993; Progress in Mathematics Committee, 1996-1998; Committee to Select the Winner of the Steele Prize, 2000–.
Selected Addresses: *AMS Special Sessions*: Washington, DC, January 1975; St. Louis, January 1977; New Orleans, January 1986; AMS Invited Address, Atlanta, January 1988; International Congress of Mathematicians, Zurich, 1994.
Additional Information: Member: SIAM; Fellow, American Academy of Arts and Sciences.
Selected Publications: 1. *Hyperbolic Conservation Laws in Continuum Physics*, Fund. Principles Math. Sci., vol. 325, Springer-Verlag, Berlin, 2000. MR **2001m:**35212.

Nathaniel Dean

Associate Professor of Mathematics, Rice University.

Born: January 9, 1956, Mound Bayou, Mississippi.
Ph.D.: Vanderbilt University, 1987.
AMS Committees: Committee on Publications, 2000–2002; *Notices* Editorial Board, 2001– (associate editor).
Selected Addresses: DIMACS Reconnect '98 Conference, Piscataway, 1998; NAM-MAA David Blackwell Lecture, MAA MathFest, Toronto, 1998; Plenary Lecture, Kolloquium über Kombinatorik, Braunschweig, 2000; Albert Turner Bharucha-Reid Lecture, New Orleans, 2001; MAA Short Course, Joint Mathematics Meetings, San Diego, January 2002.
Additional Information: President's Silver Award, Bell Laboratories, 1997; Television series appearance, *Life by the Numbers*, 1998; Vice President, NAM, 2000–; NAM Award of Appreciation, 2001; Member: ACM, MAA, NAM, SIAM.
Selected Publications: 1. with M. Mihail, M. Mostrel, and D. Shallcross, A commercial application of survivable network design: ITP/INPLANS CCS Network Topology Analyzer, *Proc. 7th Annual ACM-SIAM Symposium on Discrete Algorithms*, 1996, pp. 279-287; 2. with R. Thomas and X. Yu, Spanning paths in infinite planar graphs, *J. Graph Theory* **23** (1996), 163-174. MR **97f:**05119; 3. Editor, *African Americans in Mathematics*, DIMACS Ser. Discrete Math. Theoret. Comput. Sci., vol. 34, Amer. Math. Soc., Providence, RI, 1997. MR **98e:**00012; 4. with M. Kouider, Gallai's conjecture for disconnected graphs, *Discrete Math.* **213** (2000), 43-54. MR **2001a:**05083; 5. with D. Archdeacon, C. Bonnington, N. Hartsfield, and K. Scott, Obstruction sets for outer-cylindrical graphs, *J. Graph Theory* **38** (2001), 42-64. MR **2002g:**05061.

Statement: When I studied mathematics as a boy, it seemed like a bunch of puzzles that were usually not too difficult to solve. Later I came to view it as a logical, symbolic language that I could use to describe physical systems and ideas. The problems became more difficult to solve, they required knowledge of other sciences (e.g., physical, social, and biological), and the conclusions were not so infallible. For me now, the main challenge of mathematics is to demonstrate its power as an everyday decision-making tool and to prove its effectiveness in helping us manage those things most dear to us—our lives and our environment. Mathematics is for life.

Richard M. Hain

Professor of Mathematics, Duke University.

Born: August 15, 1953, Sydney, Australia.
Ph.D.: University of Illinois, 1980.
AMS Committees: Centennial Fellowships Committee, 1991–1992; Southeastern Section Program Committee, 1999–2000 (chair, 2000).
Selected Addresses: Six AMS Special Sessions, 1979–2002; Two plenary talks, International Conference on Algebraic Topology, Evanston, March 1988; Arbeitstagung, Bonn, June 1988; AMS Invited Address, Memphis, March 1997; Frontiers in Mathematics Lectures, Texas A&M University, March 1997.
Additional Information: Member, Institute for Advanced Study, 1985–1986 and fall 1994; AMS Research Fellowship, 1987; Organizer, Math Day for High School Students, Seattle, March 1991; Organizer, Conference on Mapping Class Groups and Moduli Spaces of Curves, Seattle, August 1991; Professeur Invité, Institut Henri Poincaré, Paris, February–April 1995; Fellow, Japan Society for the Promotion of Science, May 1998; Department Chair, Duke University, 1999–2002; Editor, *Illinois Journal of Mathematics*, 2002–. *Coorganizer*: AMS Special Session on Invariants of 3-Manifolds, Memphis, March 1997; 1st *Duke Mathematical Journal* Conference, April 1998; AMS Special Session on Moduli Spaces of Riemann Surfaces, Mapping Class Groups and Invariants of 3-Manifolds, Melbourne, July 1999; 2nd *Duke Mathematical Journal* Conference, April 2001.
Selected Publications: 1. The de Rham homotopy theory of complex algebraic varieties. I and II, *K-Theory* **1** (1987), 271-324 and 481-497. MR **88h:**14029 and MR **89d:**14028; 2. with S. Zucker, Unipotent variations of mixed Hodge structure, *Invent. Math.* **88** (1987), 83-124. MR **88i:**32035; 3. Infinitesimal presentations of the Torelli groups, *J. Amer. Math. Soc.* **10** (1997), 597-651. MR **97k:**14024; 4. with E. Looijenga, Mapping class groups and moduli spaces of curves, *Algebraic Geometry—Santa Cruz 1995*, Proc. Sympos. Pure Math., vol. 62, Part 2, Amer. Math. Soc., Providence, RI, 1997, pp. 97-142. MR **99a:**14032; 5. with M. Matsumoto, Weighted completion of Galois groups and Galois actions

on the fundamental group of $\mathbb{P}^1 - \{0, 1, \infty\}$, *Compositio Math.*, to appear.

Statement: The purpose of the Nominating Committee is to nominate strong and committed candidates for election to important elected offices of the Society, including president-elect, vice president, and trustee. If elected, I will seek to identify candidates who will represent the broad interests of the Society and who will work hard for, and be responsive to, the mathematical community.

Krystyna M. Kuperberg

Professor of Mathematics, Auburn University.
Born: July 17, 1944, Tarnów, Poland.
Ph.D.: Rice University, 1974.
AMS Offices: Member at Large of the Council, 1996-1998.
AMS Committees: *Electronic Research Announcements* Editorial Committee, 1995-; Southeastern Section Program Committee, 1996-1998 (chair, 1997); Committee on the Profession, 1996–1998; Search Committee for the Editor of *Notices*, 1999; Editorial Boards Committee, 1999-2001 (chair, 2000); AMS-MAA Joint Program Committee for the Baltimore Meeting, 2002–.
Selected Addresses: AMS Invited Address, Orlando, March 1995; MAA Invited Address, Orlando, January 1996; Invited Address, International Congress of Mathematicians, Berlin, 1998; AWM Emmy Noether Lecture, San Antonio, January 1999; CBMS Lecture Series, Macon, 2000.
Additional Information: Auburn University Alumni Professorship, 1994–1999; Alfred Jurzykowski Foundation Award, 1995; Auburn University College of Science and Mathematics Research Excellence Award, 1996; Auburn University Creative Research Award, 1999; Auburn University Distinguished Graduate Faculty Lecturer, 2002. Member: AWM, MAA, PTM (Polish Mathematical Society), SIAM.
**Selected Publications:** 1. On the bihomogeneity problem of Knaster, *Trans. Amer. Math. Soc.* **321** (1990), 129–143. MR **90m:**54043; 2. A smooth counterexample to the Seifert conjecture, *Ann. of Math. (2)* **140** (1994), 723–732. MR **95g:**57040; 3. with G. Kuperberg, Generalized counterexamples to the Seifert conjecture, *Ann. of Math. (2)* **144** (1996), 239-268. MR **97k:**57031b; 4. Bihomogeneity and Menger manifolds, Proceedings of the International Conference on Set-Theoretic Topology and Its Applications, Part 2 (Matsuyama, 1994), *Topology Appl.* **84** (1998), 175–184. MR **99b:**54048; 5. A knotted minimal tree, *Commun. Contemp. Math.* **1** (1999), 71–86. MR **2000f:**57002.
Statement: The American Mathematical Society was founded in 1888 to further mathematical research and scholarship. For over one hundred years the AMS has been upholding its primary mission. Closely working with other mathematical organizations in the United States or abroad, the AMS is seen as the leading representative of the mathematical community. As a member of the Nominating

Committee, I would support nominations, from all areas of mathematics, of high-quality research mathematicians dedicated to the Society's purpose.

Editorial Boards Committee

Richard A. Brualdi
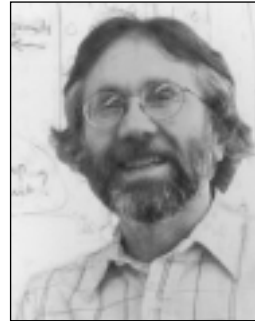
Professor of Mathematics, University of Wisconsin-Madison.
Born: September 2, 1939, Derby, Connecticut.
Ph.D.: Syracuse University, 1964.
Selected Addresses: AMS-MAA Invited Address, San Antonio, January 1993; SIAM Conference on Applied Linear Algebra, October 1997; 10th ILAS Conference, Auburn, June 2002.
**Additional Information:** Board of Governors, IMA, 1988–1991; Chair, Mathematics Department, University of Wisconsin-Madison, 1993–1999; President, International Linear Algebra Society, 1993–1999; Board of Trustees, MSRI, 1999–.
Selected Publications: 1. with H. Ryser, *Combinatorial Matrix Theory*, Encyclopedia Math. Appl., vol. 39, Cambridge University Press, Cambridge, UK, 1991. MR **93a:**05087; 2. with B. Shader, *Matrices of Sign-Solvable Linear Systems*, Cambridge Tracts in Math., vol. 116, Cambridge University Press, Cambridge, UK, 1995. MR **97k:**15001; 3. *Introductory Combinatorics*, Third edition, Prentice-Hall, Englewood Cliffs, NJ, 1999; Second edition, North-Holland Publishing Co., New York, 1992. MR **93g:**05001. First edition, North-Holland Publishing Co., New York, 1977. MR **58:**21631.
Statement: I currently serve as one of three editors in chief of the journal *Linear Algebra and its Applications* and one of four editors in chief of the *Electronic Journal of Combinatorics*. I am also a member of the editorial boards of several other journals. I hope to use this experience in serving the AMS through its Editorial Boards Committee.

Cristian E. Gutiérrez
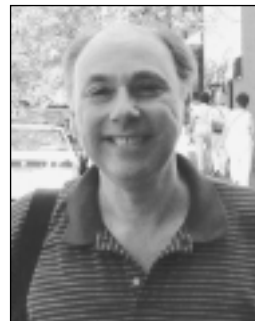
Professor of Mathematics, Temple University.
Born: November 12, 1950, Buenos Aires, Argentina.
Ph.D.: University of Buenos Aires, 1980.
Selected Addresses: CBMS Conference, Boca Raton, 1997; MSRI, Berkeley, October 1997; Fabes Lectures, University of Cagliari, Italy, June 1999; Fabes Lectures, University of Bologna, Italy, July 2001.
Selected Publications: 1. On the Riesz transforms for Gaussian measures, *J. Funct. Anal.* **120** (1994), 107–134. MR **95c:**35013; 2. with L. Caffarelli, Properties of the solutions of the linearized Monge-Ampère equation, *Amer. J. Math.* **119** (1997), 423–465. MR **98e:**35060; 3. with Q. Huang, A generalization of a theorem by Calabi to the parabolic Monge-Ampère

equation, *Indiana Univ. Math. J.* **47** (1998), 1459–1480. MR **2000a:**35105; 4. with Q. Huang, $W^{2,p}$ estimates for the parabolic Monge-Ampère equation, *Arch. Ration. Mech. Anal.* **159** (2001), 137–177; 5. *The Monge–Ampère Equation*, Progress Nonlinear Differential Equations Appl., vol. 44, Birkhaüser Boston, Boston, MA, 2001. MR **2002e:**35075.

Svetlana R. Katok

Professor of Mathematics, Pennsylvania State University.
Born: May 1, 1947, Moscow, Russia.
Ph.D.: University of Maryland, 1983.
AMS Offices: Member at Large of the Council, 1993–1995.
AMS Committees: Committee on Publications, 1993–1995; *Electronic Research Announcements* Editorial Committee, 1995– (chair); Short Course Subcommittee, 1998-2000; AMS-MAA-SIAM Morgan Prize Committee for Outstanding Research in Mathematics by an Undergraduate Student, 2002–.
Selected Addresses: Workshop on Random Matrices and Their Applications, MSRI, Berkeley, 1999; AMS Summer Research Institute on Smooth Ergodic Theory and Applications, University of Washington, Seattle, July 1999; AMS Special Session on Ergodic Theory and Topological Dynamics of $\mathbb{Z}^d$ and $\mathbb{R}^d$ Actions, Washington, DC, January 2000; Petrovskii Centenary Conference, Moscow State University, Moscow, Russia, 2001; Globus Colloquium, Independent University of Moscow, Moscow, Russia, 2002.
Additional Information: Eberly College of Science Alumni Society Distinguished Service Award, Pennsylvania State University, 2001.
Selected Publications: 1. Closed geodesics, periods and arithmetic of modular forms, *Invent. Math.* **80** (1985), 469–480. MR **86j:**11048; 2. *Fuchsian Groups*, Chicago Lectures in Math., University of Chicago Press, 1992. MR **93d:**20088; 3. with P. Sarnak, Heegner points, cycles and Maass forms, *Israel J. Math.* **84** (1993), 193–227. MR **94h:**11051; 4. Coding of closed geodesics after Gauss and Morse, *Geom. Dedicata* **63** (1996), 123–145. MR **97j:**20045; 5. with B. Gurevich, Arithmetic coding and entropy for the positive geodesic flow on the modular surface, *Moscow Math. J.* **1** (2001), 569–582.
Statement: One of the most important activities of the AMS is to produce high-quality journals which serve the entire mathematical community. To maintain high standards for acceptance of the papers in all fields, the editors should be active mathematicians highly regarded and respected by their colleagues and interested in and committed to their editorial duties. If elected, I will work hard on maintaining the high quality of the journal editorial committees.

Leonard L. Scott Jr.

McConnell/Bernard Professor of Mathematics, University of Virginia.
Born: October 17, 1942, Little Rock, Arkansas.
Ph.D.: Yale University, 1968.
AMS Committees: Committee to Select Hour Speakers for Southeastern Sectional Meetings, 1984–1985 (chair, 1985); Nominating Committee, 1987–1989; University Lecture Series Editorial Committee, 1988–2000 (chair, 1993–1999).
Selected Addresses: AMS Invited Address, College Park, April 1988; Special Session on Group Theory, First Joint Meeting of the AMS and the Israel Mathematical Union, Jerusalem, May 1995; AMS Special Session on Representations of Finite Groups, Algebraic Groups, and Lie Algebras, Baton Rouge, April 1996; Special Session, First International Joint Meeting of the AMS and the Australian Mathematical Society, Melbourne, July 1999; AMS Special Session on Representation Theory of Finite and Algebraic Groups, New Orleans, January 2001.
Additional Information: Member: AAAS, *Journal of Algebra* Editorial Board.
Selected Publications: 1. with E. Cline and B. Parshall, Cohomology of finite groups of Lie type. I, *Inst. Hautes Études Sci. Publ. Math.* no. 45 (1975), 169–191. MR **53:**3134; 2. with E. Cline, B. Parshall, and W. van der Kallen, Rational and generic cohomology, *Invent. Math.* **39** (1977), 143–163. MR **55:**12737; 3. Matrices and cohomology, *Ann. of Math. (2)* **105** (1977), 473–492. MR **56:**5746; 4. with K. Roggenkamp, Isomorphisms of *p*-adic group rings, *Ann. of Math. (2)* **126** (1987), 593–647. MR **89b:**20021; 5. Linear and nonlinear group actions, and the Newton Institute program, *Algebraic Groups and Their Representations* (Cambridge, 1997), NATO Adv. Sci. Inst. Ser. C Math. Phys. Sci., vol. 517, Kluwer, Dordrecht, 1998, pp. 1–23. MR **99k:**20029.
Statement: An AMS editor must have personal integrity and a broad view of mathematics. He or she must be able to disagree without acrimony and cooperate without compromising standards. As chair of the University Lecture Series Editorial Board during most of the nineties, I guided that series through a very formative time and oversaw a 100 percent rotation in its editorial board. I know what an AMS editor faces and have experience in suggesting and evaluating editorial appointees.