Biographies of Candidates 1997

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.

President-Elect

Srinivasa S.R. Varadhan

Professor of Mathematics, Courant Institute of Mathematical Sciences, New York University.

Born: January 2, 1940, Madras, India.

Ph.D.: Indian Statistical Institute, Calcutta, 1963.

AMS Committees: Committee to Select Hour Speakers for Eastern Sectional Meetings, 1985–1986 (chair, 1986); Committee on Special Donations of Publications, 1996– ; Committee on Publications, 1997– ; AMS-SIAM Committee to Select the Winner of the Birkhoff Prize for 1998.

Selected Addresses: Invited Address, Laramie, August 1970; Invited Speaker, International Congress of Mathematics, Helsinki, 1978; Invited Reitz Lecturer, Institute of Mathematical Sciences, San Francisco, 1992; Invited Plenary Speaker, International Congress of Mathematicians, Zurich, 1994; Invited Special Speaker, Bernoulli Society, Singapore, 1995.

Additional Information: *Elected Member*: American Academy of Arts and Sciences, 1988; Third World Academy of Sciences, 1988; Fellow, Institute of Mathematical Statistics, 1991; Foreign Associate, National Academy of Sciences, 1995. *Awards*: Alfred P. Sloan Fellowship, 1970–1972; Guggenheim Fellowship, 1984–1985; Birkhoff Prize, 1994; Steele Prize, 1996. *Member*: AMS, IMS, SIAM.

Selected Publications: 1. *The asymptotics of the Wiener sausage*, Comm. Pure Appl. Math. **28** (1975), 525–565; 2. with D. W. Stroock, *Multidimensional diffusion processes*, Springer-Verlag, Berlin and New York, 1979. MR **81f**:60108; 3. *Large deviations and applications*, CBMS-NSF Regional Conference Series in Applied Mathematics, no. 46, Society for Industrial and Applied Mathematics, Philadelphia, PA, 1984. MR **86h**:60067b; 4. *Hydrodynamical limit for a Hamiltonian system with weak noise*, Comm. Math. Phys. **155** (1993), 523–560. MR **94k**:60158; 5. *Entropy methods in hydrodynamic scaling*, Proceedings of the International Congress of Mathematicians, vol. 1, Zurich, 1994, Birkhäuser, Basel, 1995, pp. 196–208. MR **97d**:60163.

Statement: We are facing a period of uncertainty. To remain strong and attractive as a profession, we have to learn to exert a stronger influence on the outside world by our research as well as educational activities. In addition to training the next generation of research mathematicians, we should consider it a serious responsibility to train our graduates to play an important role as professional mathematicians in a nonacademic environment. If elected, I will work with the Council and the committees of the Society to do my best to achieve these goals.

Felix E. Browder

University Professor of Mathematics, Rutgers University.

Born: July 31, 1927, Moscow, fSU.

Ph.D.: Princeton University, 1948.

AMS Committees: Committee on Translations of Russian and Other Foreign Languages, 1959–1960; AMS-IMS Joint Committee, 1961–1972; *Proceedings* Editorial Committee (Associate Editor), 1959–1961; *Bulletin* Editorial Committee, 1959–1967, 1977–1983 (chair, 1979); Committee to Select Hour Speakers for Western Sectional Meetings, 1965–1968; Select Committee on *Mathematical Reviews*, 1966; Organizing Committee, Summer Institute on Global Analysis, 1968; Organizing Committee, Symposium on Nonlinear Functional Analysis, Chicago, April 1968; Committee to Monitor Problems in Communication, 1968–1969; Commission on a National Information System, 1969; Committee on Printing and Publishing, 1969–1971; Committee on Steele Prizes, 1970–1971; Committee on Science Policy, 1971–1976, 1981–1987; Committee on Relations with Government, 1972–1975; Organizing Committee, Symposium on Mathematical Developments Arising from Hilbert Problems, DeKalb, Illinois, May 1974 (chair); Committee on Meetings, 1974–1977; Committee on Budgeting Procedures and Cost Effectiveness, 1975; Committee on a Research Expository Journal, 1975–1976 (chair); Bicentennial Program Committee, 1976; Committee on Publication Problems, 1977; Editorial Committee for the Research Expository Journal, 1977–1983 (chair); Committee on Policy for Obituaries, 1979; AMS-MAA-SIAM Joint Projects Committee for Mathematics, 1979–1981; Executive Committee, 1979–1980; Committee to Review Society Activities, 1980; Organizing Committee, Symposium on the Mathematical Heritage of Poincaré, 1980 (chair); Organizing Committee, AMS Summer Institute on Nonlinear Functional Analysis and Its Applications, Berkeley, 1983 (chair); Organizing Committee, AMS Symposium on the Mathematical Heritage of Hermann Weyl, 1983–1984; Organizing Committee, Franco-American Binational Conference on the Mathematical Heritage of Élie Cartan (Secretary), Lyon, France, 1984; Centennial Committee, 1987–1988; Centennial Program Committee, 1987–1988; Advisory Committee on fSU Mathematics, 1993–1996; AMS-MAA Committee on the Year 2000, 1994–1996; Library Committee, 1994–1997; Blue Ribbon Committee for World Mathematical Year 2000, 1994– .

Selected Addresses: Invited Address, Philadelphia, January 1959; International Congress of Mathematicians, Nice, 1970; Invited Address, University Park, September 1971; Colloquium Lectures, Missoula, August 1973; Symposium on the Mathematical Heritage of Hermann Weyl, Durham, 1983.

Additional Information: Academic positions: MIT: C. L. E. Moore Instructor in Mathematics, 1948–1951. Yale University: Assistant Professor to Professor of Mathematics, 1956–1963. University of Chicago: Professor of Mathematics, 1963–1972; Louis Block Professor of Mathematics, 1972–1982; Max Mason Distinguished Service Professor of Mathematics, 1982–1986; Chair, Mathematics Department, 1972–1977 and 1980–1985. Rutgers University: University Professor of Mathematics, 1986– ; Vice-President for Research, 1986–1991.

NAS/NRC committees: Elected Membership, National Academy of Sciences, 1973; Committee on Travel Grants, Division of Mathematical Sciences, 1964–1967; Committee on Graduate and Postdoctoral Education, Division of Mathematical Sciences, 1969–1972; Report Review Panel, 1974–1978; Committee on Applied Mathematics Training, 1977–1980; Committee on Continuity in Academic Research Performance, 1978–1979; Committee on National Educational Policies in Science and Engineering, 1980–1981; NAS Awards Committee, 1981, 1983, 1985; NAS Nominating Committee, 1981, 1983, 1985; Ford Foundation Minority Review Panel on Physical, Life Sciences, Mathematics and Engineering, 1982–1984 (chair, 1984); Associateship and Fellowship Programs Advisory Committee, 1988–1992; Member-at-Large, NAS Class I Membership Committee, 1985–1987, 1991–1993, 1994–1997; Study Group on Guidelines for Mathematics Assessment, 1991–1993; Section 11: Mathematics, 1991–1994 (chair); Section Representative, NAS Class I Membership Committee, 1991–1993; Review Panel for Collaboration in Basic Science and Engineering Program, 1992–1994 (chair); Advisory Committee on Central Europe and Eurasia, 1992–1995 (chair); Councilor, National Academy of Sciences, 1992–1995; Committee on Science, Engineering, and Public Policy, 1992–1995; Governing Board, National Research Council, 1994–1995; Committee on Underrepresented Groups, 1996–1997 (chair).

Fellowships and other lectures: Procter Fellowship, Princeton University, 1947–1948; Guggenheim Memorial Fellow,

1953–1954, 1963–1964; NSF Senior Postdoctoral Fellow, Université de Paris, 1957–1958; Sloan Fellow, 1959–1963; Elected Fellow, American Academy of Arts and Sciences, 1959; Invited plenary speaker at National Meetings, 1959, 1972; National Colloquium Lecturer, AMS, 1973; Fellow, AAAS, 1978.

Other professional activities and honors: Member, American Delegation to the Inter-Academy Soviet-American Symposium on Partial Differential Equations, Novosibirsk, 1963; NSF Advisory Panel to the Mathematical Directorate, 1971–1974; Harvard Ad Hoc Committee on Mathematics, 1978; Ad Hoc Review Committee of the Wilheim von Humbolt Foundation, Bonn, 1979; Yale Alumni Council Committee on the Physical Sciences, 1979–1981; Member, International Panel of Lecturers for the International Conference on Partial Differential Equations and Differential Geometry, Beijing, 1980; Principal Speaker, Semi-Centennial Meeting, Mexican Mathematical Society, 1981; Board of Directors, NSF Institute for Mathematics and its Applications, University of Minnesota, 1981–1983; First Brazilian Universities Lecturer, Brazilian Mathematical Society, 1982; Chair, Section A (Mathematics), AAAS, 1982–1983; Board of Trustees, Santa Fe Institute, 1984–1986; American correspondent, International Conference on Partial Differential Equations, Latin-American School of Mathematics, Rio de Janeiro, 1985; Science Board, Santa Fe Institute, 1986– ; Advisory Committee, School of Science, Ohio State University, 1989–1990; Honorary doctorate, Université de Paris VI, 1990; Consultant, MacArthur Foundation, 1990–1994; Advisory Board, Montreal Mathematics Center, 1991– ; Phi Beta Kappa Book Award Committee in Science, 1992–1994 (chair, 1993–1994); Organizing Committee, International Conference on Functional Analysis into the Twenty-first Century (in honor of I. M. Gelfand), 1992–1993; Advisory Board, International Science Foundation for the fSU, 1993.

Associate editor: *Annals of Mathematics*, 1964–1969; *Duke Mathematical Journal*, 1965–1968; *Advances in Mathematics*, 1969– ; *Communications in Partial Differential Equations*, 1972–1996; *Encyclopedia of Mathematics and Its Applications*, 1975– ; *Nonlinear Analysis*, 1975– ; *Communications in Numerical Functional Analysis*, 1977– ; *L'Analyse Nonlinéaire*, 1979–1987; *London Mathematical Society Lecture Note Series*, 1979–1987; *Set-Valued Analysis*, 1993– ; *Selecta Mathematica*, 1995– .

Selected Publications: 1. *The Dirichlet problem for linear elliptic equations of arbitrary even order with variable coefficients*, Proc. Nat. Acad. Sci. U.S.A. **38** (1952), 230–235. MR **14**, 174; 2. *On the spectral theory of elliptic differential operators*. I. Math. Ann. **142** (1961), 22–130. MR **35** #804; 3. *Variational boundary value problems for quasilinear elliptic operators of arbitrary even order*, Proc. Nat. Acad. Sci. U.S.A. **50** (1963), 31–37; 4. *Nonlinear operators and nonlinear equations of evolution in Banach spaces*, Proc. Sympos. Pure Math., vol. 18, part 2, Amer. Math. Soc., Providence, RI, 1976. MR **53** #8982; 5. *On a sharpened form of the Leray-Lions ellipticity criterion*, C. R. Acad. Sci. Paris **324** (1997), 999–1004.

Statement: This is the best of times and the worst of times. Mathematical research flourishes, and its applications have never been more essential to the survival of civilization as we know it.

Yet the institutions that support mathematical research are under unprecedented attack. The AMS is the focal organization of the American mathematics community. It is charged with responsibility for the survival of our field. Employment of young mathematicians, mathematical education at all levels, research funding, recruitment of mathematical talent, public appreciation of mathematics, and underrepresentation of women and minorities in the profession are among the pressing problems the AMS must deal with. We must face these difficult challenges without complacency or defeatism and develop realistic policies that will break the present deadlock in the politics of science. As in the Rochester crisis, we will seek alliances with colleagues and organizations in the sciences. We will involve a larger sector of the mathematics community in our efforts to ensure a healthy future for mathematics. Recall Benjamin Franklin's maxim: "If we do not hang together, we shall surely all hang separately." We will reach out to all mathematicians, especially teachers at all levels. We must stand ready for resolute, broadly supported action.

Vice-President

Jennifer Tour Chayes

Professor of Mathematics, University of California, Los Angeles, and Manager, Theory Group, Microsoft Research.

Born: September 20, 1956, New York, New York.

Ph.D.: Princeton University, 1983.

AMS Committees: Western Section Program Committee, 1996–1997 (chair, 1997).

Selected Addresses: Invited Address, Irvine, November 1990; The Mark Kac Lectures, Utrecht, Netherlands, May–July 1995; Special Session on Mathematical Physics, Orlando, January 1996; Plenary Address, SIAM Annual Meeting, Kansas City, MO, July 1996; DIMACS Distinguished Lecture, Rutgers University, October 1996.

Additional Information: NSF Postdoctoral Fellow, 1984–1987; Alfred P. Sloan Fellow, 1989–1992; *Journal of Mathematical Physics* Editorial Search Committee, American Physical Society, 1991–1992; Associate Editor, *Journal of Statistical Physics*, 1991–1993; Advisory Panel, National Security Agency Mathematical Sciences Program, 1992–1994; Mortar Board Honor Society Teaching Award, University of California, Los Angeles, 1993; Distinguished Teaching Award in Mathematics, University of California, Los Angeles, 1994; Member, Institute for Advanced Study, School of Mathematics, 1994–1995 and 1997; Co-organizer, Institute for Advanced Study/DIMACS Workshop on Statistical Physics Methods in Probability Theory, Combinatorics and Theoretical Computer Science, 1997; Organizing Committee, Frontiers of Science Symposium, National

Academy of Sciences, 1997; DIMACS External Advisory Board, 1997–1999.
Selected Publications: 1. with M. Aizenman, L. Chayes, J. Fröhlich, and L. Russo, *On a sharp transition from area law to perimeter law in a system of random surfaces*, Comm. Math. Phys. **92** (1983), 19–69. MR **85d**:82006; 2. with L. Chayes, J. P. Sethna, and D. J. Thouless, *A mean-field spin glass with short-range interactions*, Comm. Math. Phys. **106** (1986), 41–89. MR **88i**:82054; 3. with M. Aizenman, L. Chayes, and C. M. Newman, *Discontinuity of the magnetization in* $1/|x-y|^2$ *Ising and Potts models*, J. Statist. Phys. **50** (1988), 1–40. MR **89f**:82072; 4. with M. Campanino and L. Chayes, *Gaussian fluctuations of connectivities in the subcritical regime of percolation*, Probab. Theory Related Fields **88** (1991), 269–341. MR **92b**:60096; 5. with C. Borgs, *The covariance matrix of the Potts model: A random cluster analysis*, J. Statist. Phys. **82** (1996), 1235–1297. MR **96m**:82011.
Statement: The mathematics community faces both challenges and opportunities in the coming years. We must respond to decreasing and shifting research funding in a way which both preserves the integrity of conventional fundamental research and provides leadership for research in new interdisciplinary fields. We must assume an active role in educating not only our own students but also the general public, with an eye to promoting understanding and appreciation of the role of mathematics in our society. We must encourage the participation of highly qualified women and minorities in mathematics, and of course we must actively support and develop employment opportunities for all mathematicians.
As an interdisciplinary mathematician with experience in both academia and industry, I would appreciate the opportunity to serve the AMS in facing these challenges and realizing these goals.

Efim Zelmanov

Professor, Yale University.
Born: September 7, 1955, fSU.
Ph.D.: Institute of Mathematics, Novosibirsk, 1981.
AMS Committees: *Transactions and Memoirs* Editorial Committee, 1994–; Electronic Research Announcements Editorial Committee, 1995– .
Selected Addresses: International Congresses of Mathematicians: Warsaw, 1983; Kyoto, 1990; and Zurich, 1994; Invited Address, Chicago, March 1995.
Additional Information: Fields Medal, International Union of Mathematicians, 1994; Member, American Academy of Arts and Sciences, 1996– .
Selected Publications: 1. with K. McCrimmon, *The structure of strongly prime quadratic Jordan algebras*, Adv. in Math. **69** (1988), 133–222. MR **89k**:17052; 2. *Solution of the restricted Burnside problem for groups of odd exponent*, translation in Math. USSR-Izv. **36** (1991), 41–60. MR **91i**:20037; 3. *Solution of the restricted Burnside problem for 2-groups*, Mat. Sb. (N. S.) **4** (1991), 568–592. MR **93a**:20063; 4. *On periodic compact groups*, Israel J. Math. **77** (1992), 83–95. MR **94j**:20019; 5. *Nil rings and periodic groups*, KMS Lecture Notes in Mathematics, Korean Mathematical Society, Seoul, 1992. MR **94c**:16027.
Statement: I think that the primary mission of the AMS is to encourage mathematical research. The AMS is also well suited to address issues that are important for the whole mathematical community, such as mathematical education, employment, research funding, and public appreciation of mathematics.

Member-at-Large of the Council

Edward F. Aboufadel

Assistant Professor, Grand Valley State University.
Born: September 9, 1965, Skokie, Illinois.
Ph.D.: Rutgers University, 1992.
Additional Information: Cofounder, Young Mathematicians Network, 1993; Participant and Presenter, University of Wyoming/NSF/Rocky Mountain Mathematics Consortium Conference on Differential and Difference Equations and Recent Developments in Population Biology, July 1994; Member: MAA, AAAS.
Selected Publications: 1. *A mathematician catches a baseball*, Amer. Math. Monthly **103** (1996), 870–878; 2. *Qualitative analysis of a singularly-perturbed system of differential equations related to the van der Pol equations*, Rocky Mountain J. Math., to appear; 3. *Applications Über Alles: Mathematics for the liberal arts*, Primus **4** (1994), 317–336; 4. *A discussion of employment issues at the Cincinnati meeting*, Notices Amer. Math. Soc. **41** (1994), 283–285; 5. *Job search diary*, MAA Focus, October 1992, December 1992, April 1993, and June 1993.
Statement: As a member of the AMS Council, I would represent the views of younger mathematicians and of faculty members at schools without doctoral programs. I have lived through two job searches and am keen to the issues of the job market. I have also been concerned about other issues pertinent to young mathematicians, such as the challenge of establishing a research program, finding one's place in the world of calculus reform, and improving the availability of child care and inexpensive housing at AMS meetings.
At my school we face the same questions the mathematical community is facing: striking the right balance between teaching and research, both in time spent and in rewards to faculty; determining the role of technology, teaching standards, and curriculum reforms in our classrooms; convincing those in power that faculty really do work hard. I am active in discussions about these issues, both at my

school and nationally, with an eye towards getting at the truth of matters and trying to solve problems. With my background I hope to be a thoughtful and effective member of the Council.

Alejandro Adem

Professor, Mathematics Department, University of Wisconsin-Madison.
Born: November 24, 1961, Mexico City, Mexico.
Ph.D.: Princeton University, 1986.
AMS Committees: AMS-IMS-SIAM Committee on Joint Summer Research Conferences, 1997.
Selected Addresses: Cornell Topology Festival, Ithaca, May 1990; Plenary Lecture, Mexican Mathematical Society, Oaxtepec, November 1991; Plenary Lecture, Latin American School of Mathematics, Mexico City, August 1993; Plenary Lecture, AMS Summer Institute on Cohomology of Groups, Seattle, July 1996; Invited Address, AMS Central Section Meeting, Columbia, November 1996.
Additional Information: NSF Young Investigator Award, 1992.
Selected Publications: 1. with W. Browder, *The free rank of symmetry of* $(S^n)^k$, Invent. Math. **92** (1988), 431–440. MR **89e**:57034; 2. *Characters and K-theory of discrete groups*, Invent. Math. **114** (1993), 489–514. MR **95j**:55006a; 3. with R. J. Milgram, *Cohomology of finite groups*, Springer-Verlag Grundlehren **309**, Berlin, 1994. MR **96f**:20082; 4. with R. J. Milgram, *The cohomology of the Mathieu group* M_{22}, Topology **34** (1995), 389–410. MR **96c**:20099; 5. *Automorphisms and cohomology of discrete groups*, J. Algebra **182** (1996), 721–737. MR **97e**:20072.
Statement: If I am elected to the Council, my main objective would be to ensure the adequate representation of the diverse viewpoints held by the AMS membership. As qualifications I can mention my extensive experience as faculty member and student at a variety of universities in the U.S. and Mexico, which has given me firsthand knowledge of a number of difficult issues which our community has been facing. I have no personal agenda except to relay the opinions of the AMS membership to the Council in a constructive manner.

Ara S. Basmajian

Associate Professor, University of Oklahoma.
Born: March 1, 1958, New York, New York.
Ph.D.: State University of New York at Stony Brook, 1987.
Selected Addresses: AMS-IMS-SIAM Summer Research Conference on the Geometry of Riemann Surfaces and Discrete Groups, Arcata, July 1989; Fifteenth Nevanlinna Colloquium (survey lecture), University of Michigan, Ann Arbor, June 3–9, 1993; Analytic and Geometric Aspects of Hyperbolic Geometry, Durham, England, July 4–10, 1993; Conference on the Geometry of 3-Manifolds and Fundamental Groups, Tokyo Institute of Technology, February 7–10, 1994; Special Session on Hyperbolic Geometry and Discrete Groups, New York, April 1996.

Additional Information: *Organizer*: with Colin Adams, Special Session on Hyperbolic Manifolds, Dayton, October 30–November 1, 1992; with Robert Miner, Special Session on Complex Hyperbolic Geometry and Discrete Groups, Stillwater, Oklahoma, October 28–29, 1994; with Bill Abikoff and Andy Haas, Special Session on Geometric Function Theory, Hartford, March 3–5, 1995, Conference in Honor of Bernard Maskit's 60th Birthday, Hartford, March 3–5, 1995; *Honors and Awards*: 1996–1997 Harry S. Kieval Lecturer, Southern Oregon State College; Selected to serve on the 56th College of National Lecturers for Sigma Xi (an honorary society for scientists and engineers), July 1, 1995–June 30, 1997; Mathematics Graduate Student Organization Outstanding Faculty Teaching Award, University of Oklahoma, 1997; *Member*: AMS, Pi Mu Epsilon Honor Society.
Selected Publications: 1. *Generalizing the hyperbolic collar lemma*, Bull. Amer. Math. Soc. (N.S.) **27** (1992), 154–158. MR **94d**:53062; 2. *The orthogonal spectrum of a hyperbolic manifold*, Amer. J. Math. **115** (1993), 1139–1159. MR**94j**:5701; 3. *Tubular neighborhoods of totally geodesic hypersurfaces in hyperbolic manifolds*, Invent. Math. **117** (1994), 207–225. MR **95c**:57020; 4. *Large parameter spaces of quasiconformally distinct hyperbolic structures*, J. D'Analyse Mathématique **71** (1997); 5. with R. Miner, *Discrete subgroups of complex hyperbolic motions*, Invent. Math., to appear.

Robert L. Bryant

J. M. Kreps Professor of Mathematics, Duke University.
Born: August 30, 1953, Kipling, North Carolina.
Ph.D.: University of North Carolina at Chapel Hill, 1979.
AMS Committees: AMS-SIAM Committee to Screen Applicants for Graduate Study from the People's Republic of China, 1988–1993; Centennial Fellowships Committee, 1990–1991; *Transactions and Memoirs* Editorial Committee, 1992–1996.
Selected Addresses: Special Session on Nonlinear PDE in Physics and Geometry, Toronto, August 1982; Invited Address, Laramie, August 1985; Special Session on Equivalence Problems and Applications, New Orleans, January 1986; International Congress of Mathematicians, Berkeley, 1986; Special Session on Recent Results in Gauge Field Theory

and Riemannian Geometry, San Antonio, January 1987; Special Session on Geometric Variational Problems, San Antonio, January 1987; Gentry Lectures, Wake Forest University, 1991; William H. Roever Lecture, Washington University, 1995; Andre Aisenstadt Lectures, Montreal, 1995; MAA Invited Lecture, Orlando, 1996; Bernard Lecture, Davidson, 1996.

Additional Information: NSF Postdoctoral Research Fellowship, 1979–1980; Alfred P. Sloan Fellowship, 1982–1984; Presidential Young Investigator Award, 1984–1989; Trinity College Distinguished Teaching Award, 1992; MAA Southeastern Region Distinguished Teaching Award, 1993; Member: AMS, MAA.

Selected Publications: 1. *A duality theorem for Willmore surfaces*, J. Differential Geom. **20** (1984), 23–53. MR **86j**:58029; 2. *Metrics with exceptional holonomy*, Ann. of Math. **126** (1987), 525–576; 3. with S. -S. Chern, R. B. Gardner, H. L. Goldschmidt, and P. A. Griffiths, *Exterior differential systems*, Springer-Verlag, New York, 1991. MR **92h**:58007; 4. *An introduction to Lie groups and symplectic geometry*, Geometry and Quantum Field Theory, IAS/Park City Math. Ser., vol. 1, Amer. Math. Soc., Providence, RI, 1995, pp. 5–181. MR **96i**:58002; 5. with P. A. Griffiths, *Characteristic cohomology of differential systems.* I. *General theory*, J. Amer. Math. Soc. **8** (1995), 507–596. MR **96c**:58183, and *Characteristic cohomology of differential systems.* II. *Conservation laws for a class of parabolic equations*, Duke Math. J. **78** (1995), 531–676. MR **96d**:58158; 6. *Finsler structures on the* 2*-sphere satisfying* $K = 1$, Finsler Geometry, Contemp. Math., vol. 196, Amer. Math. Soc., Providence, RI, 1996, pp. 27–42. MR **97e**:53128.

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 focus only 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 we should take advantage of new interdisciplinary opportunities that 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.

Jane M. Hawkins

Professor, University of North Carolina at Chapel Hill.

Born: October 27, 1954, New Haven, Connecticut.

Ph.D.: University of Warwick, Coventry, England, 1981.

Selected Addresses: Special Sessions on Ergodic Theory: Albany, August 1983; College Park, April 1988; Amherst, October 1990; Hartford, March 1995; Invited Address, Tuscaloosa, March 1992; Special Session on Complex Dynamics, Greensboro, November 1995; Invited Addresses: Technical University of Delft and University of Utrecht, the Netherlands, 1996; Special Session on Ergodic Theory and Number Theory, San Diego, January 1997.

Additional Information: Marshall Scholar, University of Warwick, 1976–1979; Mathematical Sciences Research Institute Visiting Member, 1984; Co-PI of NSF Grant for a Special Year in Ergodic Theory and Dynamical Systems, University of North Carolina at Chapel Hill, 1991–1992; Co-organizer, Special Session on Ergodic Theory and Dynamical Systems, Tuscaloosa, March 1992; Associate Chair, Department of Mathematics, University of North Carolina at Chapel Hill, 1993–1996; Member: AMS, AWM.

Selected Publications: 1. with K. Schmidt, *On* C^2*-diffeomorphisms of the circle which are of type* III_1, Invent. Math. **66** (1982), 511–518. MR **84g**:58069; 2. *Non-* IFPFI *diffeomorphisms*, Israel J. Math. **42** (1982), 117–131. MR **84k**:58129; 3. *Properties of ergodic flows associated to product odometers*, Pacific J. Math. **141** (1987), 287–294. MR **91e**:46081; 4. with K. Dajani, *Rohlin factors, product factors, and joinings for n-to-one maps*, Indiana Univ. Math. J. **42** (1993), 237–258. MR **94h**:28012; 5. *Amenable relations for endomorphisms*, Trans. Amer. Math. Soc. **343** (1994), 169–191. MR **94g**:28027.

Statement: The AMS should vigorously support the research mathematics being done by mathematicians at state universities (in all fifty states), small colleges, and diverse private institutions (including nonacademic) to accurately reflect the last decade of changes in the job market. Extremely talented research mathematicians are no longer concentrated in just a few locations in the country. Journal editorial policy, grant and conference support, and invited conference speakers should reflect this diversity.

A serious problem which the AMS should address is that only a very small percentage of mathematicians receive any government grant support. Many excellent researchers and educators are being excluded from critical conference activities as a consequence. The AMS should work closely with the other professional organizations (like MAA, AWM, and SIAM) to support advances in mathematics education from the elementary schools through graduate school. The AMS should continue to pursue policies of encouraging underrepresented groups to get into mathematics and of helping them achieve success once they become mathematicians.

Lisa Claire Jeffrey

Associate Professor, Department of Mathematics, McGill University.
Born: January 5, 1965, Fort Collins, Colorado.
Ph.D.: Oxford University, 1991.
Selected Addresses: Geometry Festival, New York, New York, April 1992; Special Session on Geometry, Topology, and Quantum Field Theory, Boston, MA, October 1995; Special Session on Moduli Spaces of Vector Bundles over Curves with or without Additional Structure, Lawrenceville, NJ, October 1996; Special Session on Lie Groups and Physics, Columbia, MO, November 1996; Invited Address, College Park, MD, April 1997; Organizer, Special Session on Symplectic Geometry, Moduli Spaces and Integrable Systems, College Park, MD, April 1997.
Additional Information: NSF Postdoctoral Fellow, 1993–1996; Member, Institute for Advanced Study, 1991–1992, 1996–1997; Aisenstadt Prize, 1996; Sloan Fellow, 1997– ; Member, NSERC Council, Canada, 1997– ; Lecturer, Park City Mathematics Institute, July 1997.
Selected Publications: 1. *Chern-Simons-Witten invariants of lens spaces and torus bundles, and the semiclassical approximation*, Comm. Math. Phys. **147** (1992), 563–604. MR **93f**:57042; 2. with J. Weitsman, *Half density quantization of the moduli space of flat connections and Witten's semiclassical manifold invariants*, Topology **32** (1993), 509–529. MR **95f**:58038; 3. with F. Kirwan, *Localization for nonabelian group actions*, Topology **34** (1995), 291–327; 4. with F. Kirwan, *Intersection pairings in moduli spaces of holomorphic bundles on a Riemann surface*, ERA Amer. Math. Soc. **01** (1995), 57–71; 5. with F. Kirwan, *Localization and the quantization conjecture*, Topology **36** (1997), 647–693.
Statement: The primary goal of the AMS is to foster high-quality research in mathematics. It should also pay attention to the following issues:
(1) developing and monitoring employment opportunities for young mathematicians, (2) increasing the representation of underrepresented groups in mathematics, and (3) fostering interaction and dialogue between mathematics and other scientific disciplines.

Karen V. H. Parshall

Associate Professor of Mathematics and History, University of Virginia.
Born: July 7, 1955, Virginia Beach, Virginia.
Ph.D.: University of Chicago, 1982.
AMS Committees: AMS-MAA Joint Archives Committee, 1992– ; AMS Representative to Section L of the AAAS, 1996– ; AMS-MAA Joint Program Committee for the Baltimore Meeting, January 7–10, 1998.
Selected Addresses: Colloquium on the History of Mathematics, Institut Henri Poincarè, Paris, France, April 1985; Special Session on Invariant Theory, Baltimore, January

1992; Invited Address, Eugene, June 1994; Invited Address, International Congress of Mathematicians, Zürich, Switzerland, August 1994; MAA Invited Hour Speaker, San Francisco, January 1995.
Additional Information: Foreign Director, Studies in the History of Science, École des Hautes Études en Sciences Sociales, Paris, France, Spring 1985; "Years Ago" Editor, *The Mathematical Intelligencer*, 1989–1992; John Simon Guggenheim Foundation Fellow, 1996–1997; NSF Visiting Professorships for Women Recipient, 1996–1997; Editor, *Historia Mathematica*, 1996–2000.
Selected Publications: 1. *Joseph H. M. Wedderburn and the structure theory of algebras*, Arch. Hist. Exact Sci. **32** (1985), 223–349. MR **87h**:01050; 2. *America's first school of mathematical research: James Joseph Sylvester at the Johns Hopkins University*, 1876–1883, Arch. Hist. Exact Sci. **38** (1988), 153–196. MR **89f**:01039; 3. with D. D. Fenster, *A profile of the American mathematical research community: 1891–1906*, The History of Modern Mathematics (E. Knobloch and D. E. Rowe, eds.), vol. 3, Academic Press, Boston, MA, 1994, pp. 179–227. MR **95i**:01009; 4. with D. E. Rowe, *The emergence of the American mathematical research community, 1876–1900 : J. J. Sylvester, Felix Klein, E. H. Moore*, History of Mathematics, vol. 8, American Mathematical Society, Providence, RI; London Mathematical Society, London, 1994. MR **95j**:01032; 5. *Mathematics in national contexts (1875–1900): An international overview*, Proceedings of the International Congress of Mathematicians, Birkhäuser, Basel, 1995, pp. 1581–1591.
Statement: Looking back at past sheets of mission statements, one sees the following repeated in a variety of phrasings: "The main mission of the AMS is the promotion of mathematical research." This is certainly true, but this mission seems consistently compromised by an inability to convey to legislators and to the broader public just exactly why mathematical research merits promotion and support. Astronomers with their comets and supernovae, physicists with their quarks, biologists with their human genome project—all captivate the public imagination and win broader support. As an AMS Council member, I would like to work toward devising a short-term as well as a long-range strategy for effectively addressing the fundamental public relations problems of the mathematical community.

Mary Beth Ruskai*

Professor, University of Massachusetts, Lowell.
Born: February 26, 1944, Cleveland, Ohio.
Ph.D.: University of Wisconsin, 1969.
AMS Committees: Research Fellowships Committee, 1986–1988; Committee on Fellowship Policy, 1988–1989; AMS-ASA-AWM-IMS-MAA-NCTM-SIAM Joint Committee on Women in the Mathematical Sciences, 1990–1996 (chair,

1992–1995); Cooperative Symposia Committee, 1991–1992 (chair); Liaison Committee with AAAS, 1992–1994 (chair); Committee on the Profession, 1993–1995; *Notices* Editorial Board (Associate Editor), 1995– ; AMS-IMS-MAA Data Committee, 1996– .

Selected Addresses: *AMS Special Sessions*: The Schrödinger Equation, Louisville, January 1990; Dynamics of Infinite Systems, San Antonio, January 1993; Operator Theory, Manhattan, Kansas, March 1994; International Conference on Semiclassical Methods and Microlocal Analysis, Paris, February 1991; International Congress of Mathematical Physics Invited Speaker, Session on Nonrelativistic Quantum Mechanics, Leipzig, Germany, 1991; Stieltjes Lecturer, University of Leiden, May 1993; Workshop on Applications of Functional Analysis and Operator Theory, Stefan Banach Center, Warsaw, 1996.

Additional Information: NSF Predoctoral Fellow, 1965–1969; Battelle Postdoctoral Fellow, 1969–1971; Organizer, NSF/CBMS Regional Conference on Wavelets, June 1990; MAA CUPM Subcommittee on Undergraduate Research in Mathematics, 1991–1996; AAAS Fellow (elected, 1992); Organizer for two NSF Block Travel Grants to enable young mathematicians to participate in international conferences: The State of Matter (Copenhagen, 1992) and the Eleventh International Congress of Mathematical Physics (Paris, 1994); MAA program committees for meetings in Burlington, August 1995; Orlando, January 1996; and for the Hedrick Lectures, 1996–1998; Advisory Editorial Board, *International Journal of Quantum Chemistry*, 1996– .

Selected Publications: 1. with E. Lieb, *Proof of the strong subadditivity of quantum-mechanical entropy*, J. Math. Phys. **14** (1973), 1938–1941. MR **49** #10294; 2. *Absence of discrete spectrum in highly negative ions*, Comm. Math. Phys. **82** (1981–1982), 457–469. MR **83a**:81087; *Absence of discrete spectrum in highly negative ions. II. Extension to fermions*, Comm. Math. Phys. 85 (1982), 325–327. MR **84b**:81124; 3. *Absence of bound states in extremely asymmetric positive diatomic molecules*, Comm. Math. Phys. **137** (1991), 553–566. MR **92m**:81042; 4. with M. D. Choi and E. Seneta, *Equivalence of certain entropy contraction coefficients*, Linear Algebra Appl. **208/209** (1994), 29–36. MR **95h**:94008; 5. *Improved estimate on the number of bound states of negatively charged bosonic atoms*, Ann. Inst. H. Poincaré Phys. Théor. **61** (1994), 153–162. MR **95j**:81250.

Statement: The primary purpose of the AMS is to promote and foster research in mathematics. Although members may disagree on how broadly to interpret this, they are becoming increasingly aware that research does not take place in a vacuum. Mathematics research is affected by the quality of mathematics education, employment opportunities, the funding climate in Washington, and the perception of mathematics and its importance by the general public as well as by scientists and engineers. I believe the AMS can be most effective in these areas by avoiding duplication of effort and working collaboratively with other organizations and other disciplines.

In the Washington arena it is important that groups within the mathematics community find ways to work out their differences and present a strong consensus position. In the case of employment opportunities the AMS needs to address the loss of academic positions due to exploitive employment practices and the reassignment of mathematics teaching responsibilities to faculty in other departments. Finally, particularly in view of the fact that many promising young mathematicians are trying to develop research careers in difficult circumstances, the AMS must strengthen its commitment to support research mathematicians in *all* types of environments, including those at nondoctoral institutions.

*Nominated in response to a petition.

Michael Starbird

Associate Dean for Undergraduate Education, College of Natural Sciences, and Professor of Mathematics, University of Texas at Austin.

Born: July 10, 1948.

Ph.D.: University of Wisconsin, 1974.

Selected Addresses: Invited Address, Norman, March 1983; Invited Address, MAA Regional meeting, San Diego, 1983; Special Session on Geometric Topology: Manifold Theory, Logan, October 1986; AMS/MAA Special Session on Education Reform, Invited talk, 1994; Special Session on the Evolving Undergraduate Mathematics Curriculum, Stillwater, October 1994.

Additional Information: Visiting Member, Institute for Advanced Study, 1978–1979; Minnie Stevens Piper Professor (awarded to 10 professors each year in the state of Texas), 1984; President's Associates Teaching Excellence Award, 1989; UT Recreational Sports Super Racquets Champion, 1989; Associate Dean, College of Natural Sciences, University of Texas at Austin, 1989–1997; Mathematicians and Education Reform (MER) Network, Member of the Board, 1992– ; MER Task Force on the Departmental Network, 1993– ; Jean Holloway Award for Teaching Excellence, 1995.

Selected Publications: 1. with M. E. Rudin, *Products with a metric factor*, Gen. Topology Appl. **5** (1975), 235–248; 2. with R. H. Bing, *Linear isotopies in* E^2, Trans. Amer. Math. Soc. **237** (1978), 205–222. MR **57** #1495; 3. *Cell-like,* 0*-dimensional decompositions of* E^3, Trans. Amer. Math. Soc. **249** (1979), 203–216. MR **80h**:57016; 4. with R. Denman, *Shrinking countable decompositions of* S^3, Trans. Amer. Math. Soc. **276** (1983), 743–756. MR **84f**:57004; 5. with F. Ancel, *The shrinkability of Bing-Whitehead decompositions*, Topology **28** (1989), 291–304. MR **90g**:57014.

Statement: The future vitality of the mathematics profession will be determined largely by decisions made by non-

mathematicians. As associate dean, I attended a meeting at which nationally prominent deans were asked to describe their departments of mathematics. "Insular" was the word most commonly used by the other deans. They stated that their mathematics departments were largely uninterested in strategic planning, general education, or connections with other departments.

As I return to the department after an eight-year stint in college administration, I am keenly aware of the perceptions of mathematics held by faculty members in other departments, by administrators, by donors, and by the nonacademic community. We mathematicians must learn how to listen to these external voices and better meet their needs. Mathematics is exciting, useful, and one of the ongoing, crowning achievements of human thought—an expanding adventure to which nonmathematicians could be welcomed. This outward-looking perspective shapes ideas on funding of research and teaching, revisions of graduate and undergraduate curricula, outreach activities, inclusion of underrepresented populations, and building an infrastructure for systematically bringing mathematical research activity within the grasp of many. Mathematics has far more to give the whole society than we have traditionally offered.

Abigail A. Thompson

Associate Professor, University of California, Davis.
Born: June 30, 1958, Norwalk, Connecticut.
Ph.D.: Rutgers University, 1986.
Selected Addresses: Wasatch Topology Conference, Park City, 1995; Julia Robinson Conference, Mathematical Sciences Research Institute, 1996; CBMS Conference, University of California, Davis, 1996; Mathematical Sciences Research Institute-Evans Joint Lecture, 1996; West Coast Topology Conference, Stanford University, 1996.
Additional Information: Lady Davis Fellow, Hebrew University, 1986–1987; University of California President's Fellow, 1987–1988; NSF Postdoctoral Fellow, 1988–1991; Member, Institute for Advanced Study, 1990–1991; Alfred P. Sloan Foundation Research Fellow, 1991–1993; NSF Career Advancement Award, 1994–1995.
Selected Publications: 1. *Thurston norm-minimizing surfaces and skein trees for links in* S^3, Proc. Amer. Math. Soc. **106** (1989), 1085–1090. MR **90g**:57011; 2. with M. Scharlemann, *Detecting unknotted graphs in* 3*-space*, J. Differential Geom. **34** (1991), 539–560. MR **93a**:57012; 3. with M. Scharlemann, *Thin position and Heegaard splittings of the* 3*-sphere*, J. Differential Geom. **39** (1994), 343–357. MR **95a**:57026; 4. *Thin position and the recognition problem for* S^3, Math. Res. Lett. **1** (1994), 613–630. MR **95k**:57015; 5. *Thin position and bridge position for knots in the* 3*-sphere*, Topology **36** (1997), 505–507.
Statement: The primary purpose of the AMS is and should be to promote mathematical research. To maintain the health of the current and future research community, there are two areas in which the AMS should play an important advocacy role. The first is in improving the difficult job situation for new Ph.D.s. The second is in ensuring a high level of primary and secondary mathematics education.

Deane Yang

Professor, Polytechnic University.
Born: September 24, 1957, Philadelphia, Pennsylvania.
Ph.D.: Harvard University, 1983.
Selected Addresses: Co-organizer, Workshop on Differential Geometry, Aspen Center for Physics, Aspen, Colorado; Co-organizer, First Annual Texas Geometry and Topology Festival, Houston, Texas, 1988; First Annual East Coast Geometry Festival, Philadelphia, 1984; Invited Address, South Bend, 1991; Northwest Geometry Festival, Eugene, 1994.
Additional Information: NSF Postdoctoral Fellow, 1983–1987; Sloan Foundation Fellow, 1988–1990; Research Group, Sumitomo Bank Capital Markets, January–May 1996.
Selected Publications: 1. *Local solvability of overdetermined systems defined by commuting first-order differential operators*, Comm. Pure Appl. Math. **39** (1986), 401–421. MR **87h**:58202; 2. *Involutive hyperbolic differential systems*, Mem. Amer. Math. Soc. **68** (1987). MR **89b**:58232; 3. *Convergence of Riemannian manifolds with integral bounds on curvature.* I. Ann. Sci. École Norm Sup. **25** (1992), 77–105. MR **93a**:53037; 4. *Riemannian manifolds with small integral norm of curvature*, Duke Math. J. **65** (1992), 501–510. MR **93e**:53052; 5. *Existence and regularity of energy-minimizing Riemannian metrics*, Internat. Math. Res. Notices (1991), 7–13. MR **92f**:58039.
Statement: The mathematics community has never been more productive and vibrant than now. We have witnessed in recent years amazing developments in a wide range of areas. We have also seen mathematics used more and more extensively, not only in science and engineering, but also in business and finance.

Yet the mathematics community is in a state of crisis. Too many outside of mathematics do not understand its value and importance. Support for research is declining. Many people are questioning the necessity and quality of the mathematics education we provide.

A Ph.D. in mathematics is becoming an increasingly devalued commodity. We must either stop producing more Ph.D.s than are needed by our colleges and universities *or* restructure the degree so that a Ph.D. in mathematics is as important outside of the academy as it is in it.

The Society must assume a leading role in addressing these issues. We must demonstrate to the public the value of mathematical research. A serious educational effort must be mounted in Washington. But most of all, we must develop internal strategies that will build a viable future for mathematics and mathematicians.

Trustee

Frederic Y. M. Wan

Vice Chancellor for Research, Dean of Graduate Studies, Professor of Mathematics, University of California, Irvine.

Born: January 7, 1936, Shanghai, China.

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

AMS Committees: Committee on Committees, 1995–1996; Committee on Science Policy, 1995– .

Selected Addresses: The Third IUTAM Shell Symposium, Tbilisi (fSu), 1978; European Mechanics Colloquium on Flexible Shells, Munich, Germany, 1983; European Mechanics Colloquium on Localized Effects in Structures, Cachan, France, 1984; Symposium of Asymptotic and Computational Analysis in honor of Frank Olver, Winnipeg, 1989; International Symposium on Methods and Applications of Analysis, Shatin, Hong Kong, 1994.

Additional Information: *Canadian Applied Mathematics Society* Elected Council Member, 1980–1982; Elected President, 1983–1985; Past President, 1985–1987; The Arthur Beaumont Distinguished Service Award, 1991. *American Academy of Mechanics*: Elected Fellow, 1982; Secretary of Fellows, 1985–1990; President-Elect, 1991–1992; President, 1992–1993; Past President, 1993–1994. *Society of Industrial and Applied Mathematics*: Education Committee, 1983–1987; Representative, U. S. National Committee on Theoretical and Applied Mechanics, 1991–1994; Science Policy Committee, 1990–1993, 1995– . *American Society of Mechanical Engineers*: Elected Fellow, 1988; Committee on Elasticity, 1985– . Elected Fellow, AAAS, 1994. *National Science Foundation*: Certificate of Outstanding Services and Achievements, 1994 (as Division Director of the Division of Mathematical Sciences, 1993–1994); Member: AMS, MAA.

Selected Publications: 1. with D. F. Parker, *Finite polar dimpling of shallow caps under sub-buckling pressure loading*, SIAM J. Appl. Math. **44** (1984), 301–326. MR **85c**:73034; r 10102. with H. C. Tuckwell, *First passage time of Markov processes to moving barriers*, J. Appl. Probab. **21** (1984), 695–709. MR **86c**:60101; 3. *Ordered site access and optimal forest rotation*, Stud. Appl. Math. **73** (1985), 155–175. MR **86j**:92035; 4. with R. D. Gregory, *Correct asymptotic theories for the axisymmetric deformation of thin and moderately thick cylindrical shells*, Internat. J. Solids and Structures **30** (1993), 1957–1981; 5. *Introduction to the calculus of variations and its applications*, Chapman & Hall, New York, 1995. MR **97a**:49001.

Statement: As vice chancellor for research and dean of graduate studies at University of California at Irvine, I am intimately involved in issues pertaining to research and graduate education in general and in the mathematical sciences in particular. Through the University of California system, I also have the benefit of learning about the positions and approaches of the other eight campuses on these same issues through quarterly meetings of the graduate deans and the research vice chancellors.

At Research and Graduate Studies at UCI, I am responsible for an office with a budget of over $20 million. I am an ex officio member of the UCI budget team, which hears budget presentations and requests for new resources by all academic units, reviews the requests, and assists the executive vice chancellor (provost) in allocating available resources. These experiences should be useful in the management of the Society's $17 million budget.

Prior to coming to UCI, I served as a department chair and the divisional dean for all natural and mathematical sciences at the University of Washington (with a budget of $30 million). In those capacities I had to deal with an even wider range of issues on undergraduate and graduate education, including personnel, space renovation, and academic building construction. These experiences will also be valuable to the Board of Trustees of the Society.

Finally, I gained from my three years of service at the National Science Foundation considerable experience with and insight into the federal government, particularly regarding support for research and education for the mathematical sciences. The Society recognized the value of this experience when it appointed me to its Committee on Science Policy immediately after the completion of my two-year term as division director of DMS at NSF. With my term on the CSP ending on December 31, 1997, I am in a position to provide a bridge between the Trustees and that committee.

Roy L. Adler

Research Staff Member, Thomas J. Watson Research Center, IBM.

Born: February 22, 1931, Newark, New Jersey.

Ph.D.: Yale University, 1961.

AMS Offices: Board of Trustees, 1993– (chair, 1996–1997).

AMS Committees: Eastern Section Program Committee, 1992–1994; Committee on the Profession, 1993–1995; Committee on Meetings and Conferences, 1995– ; Policy Review Committee for Education, 1996 (chair); Search Committee for Secretary, 1996– ; Investment Committee, 1996– .

Selected Addresses: Invited Address, Kalamazoo, August 1975; Keynote Speaker, Dynamical Systems and Information Theory, Australian Mathematical Society Annual Meeting, Monash University, Melbourne, Australia, 1984; Geodesic Flows, Maps of the Interval, and Symbolic Dynamics, Lecture series, Topical Meeting on Hyperbolic Geometry and Ergodic Theory, ICTP, Trieste, Italy, 1989; What is a Markov partition? lecture, Colloque Arithmetics and Symbolic Dynamics, CIRM, Luminy, October 1991, and Colloquium Lecture, University of California, Berkeley, 1992; Special Session on Ergodic Theory, Boston, October 1995.

Additional Information: Board of Directors, Ossining Public Library, 1968–1973; Chair, American Mathematical Society Summer Research Conference, Ergodic Theory and Applications, June 13–19, 1982; IBM Mathematical Sciences Department Manager, 1982–1987, Senior Manager, 1987–1994; Chair, Mathematical Sciences Research Institute Workshop, Coding and Isomorphisms in Ergodic Theory, December 8–13, 1983; Fellow, New York Academy of Sciences, June 1985; IEEE, Information Theory Group Best Paper Prize, 1985; Trustee, Mathematical Sciences Research Institute, Berkeley, 1986–1991; Panelist, National Science Research Council Associateship Programs, 1986–1992; Chair, Coding Theory, Fourth SIAM Conference on Discrete Mathematics, 1988; Editorial Board, *Ergodic Theory and Dynamical Systems*, Cambridge University Press, 1989–1994; Conference at Yale University in honor of 60th birthday, 1991; Chair, Symbolic Dynamics Program, Mathematical Sciences Research Institute, 1992.

Selected Publications: 1. with A. G. Konheim and M. H. McAndrew, *Topological entropy*, Trans. Amer. Math. Soc. **114** (1965), 309–319. MR **30** #5291; 2. with B. Weiss, *Similarity of automorphisms of the torus*, Mem. Amer. Math. Soc., no. 98, American Mathematical Society, Providence, RI, 1970. MR **41** #1966; 3. with B. Marcus, *Topological entropy and equivalence of dynamical systems*, Mem. Amer. Math. Soc., no. 219, American Mathematical Society, Providence, RI, 1979. MR **83h**:28027; 4. with D. Coppersmith and M. Hassner, *Algorithms for sliding block codes. An application of symbolic dynamics to information theory*. IEEE Trans. Inform. Theory **29** (1983), 5–22. MR **85b**:94009; 5. with L. Flatto, *Geodesic flows, interval maps, and symbolic dynamics*, Bull. Amer. Math. Soc. (N. S.) **25** (1991), 229–334. MR **92b**:58172.

Statement: We face challenging times. The AMS must carry out its principal activity, dissemination of scientific information via meetings and publications, in the face of a host of other problems affecting our profession: scarce funding, high unemployment, dramatic technological change, lopsided representation with regard to sex and race, educational reform, pressure for change in the tenure system, etc. The Society must balance all its activities against the sine qua non to remain solvent. During my first term I have tried my best to see that the Society is run wisely. I will continue to do so if elected to a second.

Nominating Committee

Michal Misiurewicz

Professor, Department of Mathematical Sciences, Indiana University-Purdue University, Indianapolis.

Born: November 9, 1948, Warsaw, Poland.

Ph.D.: Warsaw University, 1974.

Selected Addresses: Invited Address, International Congress of Mathematicians, Warsaw, Poland, 1983; IUPUI SOS and SOLA Faculty Spotlight Lecture, Indianapolis, IN, 1994; Invited Address, Iowa City, IA, 1996.

Additional Information: Four awards from the Polish Academy of Sciences; three awards from the Minister of Higher Education, Science, and Technics of Poland; three awards from the Polish Mathematical Society; Member, Main Committee of the Polish Mathematical Olympiad, 1976–1990.

Selected Publications: 1. *Absolutely continuous measures for certain maps of an interval*, Inst. Hautes Études Sci. Publ. Math. **53** (1981), 17–51. MR **83j**:58072; 2. *On iterates of* e^z, Ergodic Theory Dynamical Systems **1** (1981), 103–106. MR **82i**:58058; 3. with Z. Nitecki, *Combinatorial patterns for maps of the interval*, Mem. Amer. Math. Soc. **94** (1991), no. 456. MR **92h**:58105; 4. with Ll. Alseda and J. Llibre, *Combinatorial dynamics and entropy in dimension one*, Advanced Series in Nonlinear Dynamics, vol. 5, World Scientific Publishing Co., Inc., River Edge, NJ, 1993. MR **95j**:58042; 5. with J. Franks, *Cycles for disk homeomorphisms and thick trees*, Nielsen Theory and Dynamical Systems (South Hadley, MA, 1992), Contemp. Math., vol. 152, Amer. Math. Soc., Providence, RI, 1993, pp. 69–139. MR **95e**:58133.

Statement: The Nominating Committee should seek out candidates with broad views, with their own opinions on the problems facing the mathematical community, but also with a willingness to listen to others. Diversity of opinions is important; usually the best solutions emerge from a discussion among people who look at the same problem from different angles.

Catherine L. Olsen

Professor, State University of New York at Buffalo.

Born: September 24, 1942, Valley City, North Dakota.

Ph.D.: Tulane University, 1970.

AMS Committees: *Proceedings* Editorial Committee (Associate Editor), 1980–1984; Nominating Committee, 1986–1987.

Selected Addresses: Special Session on Operator Theory, Washington, DC, 1975; Canadian Operator Symposium, Guelf, Ontario, 1977; Royal Irish Academy Symposium on Spectral Theory, Dublin, Ireland, 1980; University of Copenhagen Institute of Mathematics Colloquium, Copenhagen, 1985; International Conference on C*-algebras and Their Invariants, Cork, Ireland, 1995.

Additional Information: State University of New York Chancellor's Award for Excellence in Teaching, 1978; Member: AMS, AWM, MAA.

Selected Publications: 1. *A structure theorem for polynomially compact operators*, Amer. J. Math. **93** (1971), 686–698. MR **53** #8947; 2. *Norms of compact perturbations of operators*, Pacific J. Math. **68** (1977), 209–228. MR **56** #9300; 3. *Index theory in von Neumann algebras*, Mem. Amer. Math. Soc. **47** (1984), no. 294. MR **85k**:46064; 4. with G. K. Pedersen, *Corona C*-algebras and their applications to*

lifting problems, Math. Scand. **64** (1989), 63–86. MR **91g**:46064; 5. with T. Natsume, *Toeplitz operators on noncommutative spheres and an index theorem*, Indiana Univ. Math. J. (1997), to appear.

Statement: In the current time of change and problems for the discipline and profession of mathematics, it is crucial that the AMS should continue to be a vital organization. This requires officers who are highly qualified, energetic, and representative of the broad spectrum of the profession.

Paul H. Rabinowitz

Professor, University of Wisconsin-Madison.
Born: November 15, 1939, Newark, New Jersey.
Ph.D.: New York University, 1966.
AMS Committees: *Transactions and Memoirs* Editorial Committee, 1980–1982; Committee on Postdoctoral Fellowships, 1981–1983 (chair, 1983); Organizing Committee, 1983 AMS-SIAM Summer Institute on Nonlinear Functional Analysis and Its Applications; Committee on Committees, 1986–1988; AMS-MAA Joint Program Committee for the Salt Lake City Meeting, 1987; Committee on Committees, 1987–1988; Program Committee for National Meetings, 1987–1988 (chair, 1987–1988); Committee on Summer Institutes and Special Symposia, 1987–1989; *Journal of the AMS* Editorial Committee (Associate Editor), 1987–1992; Progress in Mathematics Committee, 1989–1991; Committee on Steele Prizes, 1992–1995.

Selected Addresses: International Congress of Mathematicians, 1978; Colloquium Lectures, Eugene, August 1984.

Additional Information: CBMS Lectures, 1984; CBMS Regional Panel, 1985–1987; Member, Board of Trustees and Steering Committee, Mathematical Sciences Research Institute, 1987–1993; Visiting Committees at the University of Chicago, University of Kentucky, and the Weizmann Institute; Currently serve on editorial boards of six journals.

Selected Publications: 1. *Some global results for nonlinear eigenvalue problems*, J. Funct. Anal. **7** (1971), 487–513. MR **46** #745; 2. with A. Ambrosetti, *Dual variational methods in critical point theory and applications*, J. Funct. Anal. **14** (1973), 349–381. MR **51** #6412; 3. *Free vibrations for a semilinear wave equation*, Comm. Pure Appl. Math. **31** (1978), 31–68. MR **81i**:35109; 4. *Periodic solutions of Hamiltonian systems*, Comm. Pure Appl. Math. **31** (1978), 157–184. MR **57** #7674; 5. with V. Coti Zelati, *Homoclinic orbits for second order Hamiltonian systems possessing superquadratic potentials*, J. Amer. Math. Soc. **4** (1991), 693–727. MR **93e**:58023.

Statement: The AMS and the profession face increasing challenges from many issues, such as unemployment, support for research, educational reform, the uses of technology, and the development of links to other fields. It is crucial that the Nominating Committee energetically seek out a wide variety of highly qualified candidates to provide the leadership the Society needs to address these matters.

Elias M. Stein

Professor, Princeton University.
Born: January 13, 1931, Antwerp, Belgium.
Ph.D.: University of Chicago, 1955.
Offices: Member-at-Large of the Council, 1971–1973, 1984; Vice President, 1982–1983.
AMS Committees: Organizing Committee for Summer Institutes, 1964–1966; Nominating Committee for the 1971 Election; Organizing Committee for the 1972 Summer Research Institute; Executive Committee, 1972, 1984; Committee on Summer Institutes, 1975–1977 (chair, 1977); Committee on Science Policy, 1976–1978, 1980–1982; *Colloquium* Editorial Committee, 1976–1982 (chair, 1978–1981); Committee to Select Hour Speakers for Eastern Sectional Meetings, 1977–1978 (chair, 1978); Interim Editorial Committee for Research Announcements, 1978; Organizing Committee, 1978 Summer Research Institute on Harmonic Analysis in Euclidean Spaces and Related Topics; *Bulletin* Editorial Committee (Associate Editor, Research Announcements), 1979–1980; Committee on the Publication Program (Board of Trustees), 1984–1985; *Journal of the AMS* Editorial Committee, 1993– .
Additional Information: Sloan Foundation Research Fellow, 1961–1963; NSF Senior Fellow, Institute for Advanced Study, 1962–1963, 1971–1972; Senior Visiting Fellow, Science Research Council of Great Britain, 1968; Guggenheim Memorial Foundation Fellow, 1976; Member: AMS, NAS.

Clarence Eugene Wayne

Professor of Mathematics, The Pennsylvania State University (after September 1, 1997: Professor of Mathematics, Boston University).
Born: June 5, 1956, Moundsville, West Virginia.
Ph.D.: Harvard University (Physics), 1982.
Selected Addresses: Plenary Lecture, NATO Advanced Study Institute on Ordered and Chaotic Behavior in Hamiltonian Systems, Torun, Poland, June 1993; Invited Lectures, AMS-SIAM Summer School on Dynamical Systems and Partial Differential Equations, Mathematical Sciences Research Institute, June 1994; Invited Address, First U.S.-China Conference on Differential Equations and Their Applications, Hangzhou, People's Republic of China, July 1996; Invited Address, Manhattan, KS, March 1998.
Additional Information: Vice Chair, SIAM Activity Group in Dynamical Systems, 1992–1995; Chair, Committee on Electronic Communication and Publications, International Association of Mathematical Physics, 1994– ; MAA Allegheny Mountain Section Award for Outstanding College and University Teaching, 1997; Member: AMS, APS, MAA, SIAM.
Selected Publications: 1. with W. Craig, *Newton's method and periodic solutions of nonlinear wave equations*, Comm. Pure Appl. Math. **46** (1993), 1409–1498. MR **94m**:35023;

2. with R. D. Pierce, *On the validity of mean-field amplitude equations for counterpropagating wavetrains*, Nonlinearity **8** (1995), 769–779. MR **96f**:35147; 3. with J. Bona and K. Promislow, *Higher-order asymptotics of decaying solutions of some nonlinear, dispersive, dissipative wave equations*, Nonlinearity **8** (1995), 1179–1206. MR **96k**:35015; 4. *An introduction to KAM theory*, Dynamical Systems and Probabilistic Methods in Partial Differential Equations, Lectures in Appl. Math., vol. 31, Amer. Math. Soc., Providence, RI, 1996, pp. 3–29. MR **96j**:58148; 5. *Invariant manifolds for parabolic partial differential equations on unbounded domains*, Arch. Rational Mech. Anal., to appear.

Statement: As the community of mathematicians becomes more diverse and as mathematicians increasingly take up careers outside the traditional academic setting, the Nominating Committee should strive to ensure that the candidates for AMS offices represent all the constituencies that make up our field. In addition, it should seek out candidates who can be effective and persuasive advocates for mathematics outside of the mathematics community.

Sylvia M. Wiegand

Professor of Mathematics, University of Nebraska-Lincoln.

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

Ph.D.: University of Wisconsin, Madison, 1972.

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

AMS Committees: Committee on Committees, 1991–1993; Subcommittee to Study the Committee Structure, 1992; Task Force on AMS Conferences, 1994; Representative, Canadian Mathematical Society, 1994–1997; Committee on Meetings and Conferences, 1994– (chair, 1994–1996); Policy Review Committee, 1996–1997.

Selected Addresses: Invited Address, Fargo, October 1991; AMS Special Sessions: Commutative Algebra, Orlando, January 1996; Commutative Ring Theory, Iowa City, March 1996; Commutative Algebra, Lawrenceville, October 1996; Commutative Algebra, Columbia, November 1996.

Additional Information: Association for Women in Mathematics: President-Elect, 1996; President, 1997– ; served on various selection committees, 1993–1996. Expository Prize Committee, Mathematical Association of America, 1993–1994; University of Kansas Review Team, Department of Mathematics, May 1996; At-Large Member, Board of Trustees, Canadian Mathematical Society, 1997– ; Co-organizer, AMS Special Sessions on Commutative Algebra: San Francisco, January, 1995; Seattle, August 1996; San Diego, January 1997; South Africa, June 1997.

Selected Publications: 1. with R. Wiegand, *Bounds for one-dimensional rings of finite Cohen-Macaulay type*, J. Pure Appl. Algebra **93** (1994), 311–342. MR **95c**:13004; 2. with W. Heinze, *Prime ideals in polynomial rings over one-dimensional domains*, Trans. Amer. Math. Soc. **347** (1995), 639–650. MR **95d**:13010; 3. with N. Cimen and R. Wiegand, *One-dimensional rings of finite representation type*, Abelian Groups and Modules (A. Facchini and C. Menini, eds.), Kluwer, Dordrecht, 1995, pp. 95–121. MR **97a**:13014; 4. with A. Li, *Prime ideals in two-dimensional domains over the integers*, J. Pure Appl. Algebra, to appear; 5. with W. Heinzer and C. Rotthaus, *Noetherian rings between a local domain and its completion*, J. Algebra, to appear.

Statement: The American Mathematical Society has given outstanding service to the mathematical community on many fronts. For example, the Society's recent terrific efforts to promote mathematics may have a wonderful effect on funding for mathematics and other sciences. My candidacy for this position results from a wish that more mathematicians might be involved in the great work of the Society and that they would continue the tradition that has been started. Specifically, I hope to assist in making nominations which tap a broad spectrum of previously unused talent (although not necessarily excluding the previously used talents which have brought us this far).

Editorial Boards Committee

Jay R. Goldman

Professor of Mathematics, University of Minnesota, Minneapolis.

Born: August 2, 1940, Brooklyn, New York.

Ph.D.: Princeton University, 1966.

AMS Committees: *Proceedings* Editorial Committee (Associate Editor), 1974–1975; *Bulletin* Publications Committee, 1977.

Selected Addresses: Special Session on Knots and Topological Field Theory, Dayton, October 1992; Massachusetts Institute of Technology, Fall 1994; University of Montreal at Quebec, November 1994; Smith College Combinatorics Day, Winter 1995; Conference in Honor of Gian-Carlo Rota, Massachusetts Institute of Technology, April 1996.

Additional Information: Lester R. Ford Award, MAA, 1976; Former member, NSF panel to evaluate the use of bibliographic tools in research and public policy decisions.

Selected Publications: 1. with L. Kauffman, *Knots, tangles, and electrical networks*, Adv. in Appl. Math. **14** (1993), 267–306. MR **94m**:57013; 2. with L. Kauffman, *Rational tangles*, Adv. in Appl. Math. **18** (1997), 300–332.

Statement: I believe that the major problem facing the Editorial Boards Committee relates to electronic journals with no corresponding paper version. The increased cost of adding extra papers to such journals is probably quite small. Thus it is very important to find editors who will do their best to maintain the highest quality journals.

David Jerison

Professor of Mathematics, Massachusetts Institute of Technology.

Born: November 12, 1953, Lafayette, Indiana.

Ph.D.: Princeton University, 1980.

AMS Committees: *Transactions and Memoirs* Editorial Committee, 1991–1995.

Selected Addresses: Midwest PDE Conference, University of Illinois at Chicago, 1982; Invited Address, Salt Lake City,

August 1987; Keeler Lectures, University of Michigan, 1988; Journées "Equations aux Dérivées Partielles", St-Jean-de-Monts, 1989, 1995; International Congress of Mathematicians, Zurich, 1994.
Additional Information: Alfred P. Sloan Fellow, 1985–1987; Presidential Young Investigator Award, 1985–1990; Editorial Boards: *Duke Mathematical Journal*, 1988– ; *Journal of Geometric Analysis*, 1990– ; *Astérisque*, 1996– .
Selected Publications: 1. with C. E. Kenig, *Unique continuation and absence of bound states for Schrödinger operators*. With an appendix by E. M. Stein. Ann. of Math. **121** (1985), 463–494. MR **87a**:35058; 2. with J. M. Lee, *Extremals for the Sobolev inequality on the Heisenberg group and the CR Yamabe problem*, J. Amer. Math. Soc. **1** (1988), 1–13. MR **89b**:53063; 3. *Prescribing harmonic measure on convex domains*, Invent. Math. **105** (1991), 375–400. MR **92k**:31003; 4. *The diameter of the first nodal line of a convex domain*, Ann. of Math. **141** (1995), 1–33. MR **95k**:35148; 5. *A Minkowski problem for electrostatic capacity*, Acta Math. **176** (1996), 1–47. MR **97e**:31003.
Statement: I will try to find as many good candidates for the editorial boards as possible. I welcome suggestions from anyone.

Abel Klein

Professor and Chair, Department of Mathematics, University of California, Irvine.
Born: January 16, 1945, Rio de Janeiro, Brazil.
Ph.D.: Massacusetts Institute of Technology, 1971.
Selected Addresses: Xth International Congress of Mathematical Physics: Topical Session on Disordered Systems and Topical Session on Equilibrium Statistical Mechanics, Leipzig, July 30–August 9, 1991; Moscow Mathematical Society Colloquium, March 26, 1991; Probability Theory of Spatial Disorder and Phase Transition, Isaac Newton Institute, Cambridge University, Cambridge, UK, July 4–16, 1993; XIth International Congress of Mathematical Physics: Topical Session on Disordered Systems, Paris, July 18–23, 1994; AMS Invited Address, Albuquerque, November 1997.
Additional Information: NSF Grants, 1976– ; Associate Editor, *Journal of Statistical Physics*, 1993–1996; Member: International Association of Mathematical Physics.
Selected Publications: 1. with H. von Dreifus, *A new proof of localization in the Anderson tight binding model*, Comm. Math. Phys. **124** (1989), 285–299. MR **90k**:82056; 2. with L. Landau and J. F. Perez, *Supersymmetry and the Parisi-Sourlas dimensional reduction: A rigorous proof*, Comm. Math. Phys. **94** (1984), 459–482. MR **86c**:82041; 3. *Extinction of contact and percolation processes in a random environment*, Ann. Probab. **22** (1994), 1227–1251. MR **96f**:60163; 4. *Absolutely continuous spectrum in the Anderson model on the Bethe lattice*, Math. Res. Lett. **1** (1994), 399–407. MR **95i**:82057; 5. with A. Figotin, *Localization of classical waves. II. Electromagnetic waves*, Comm. Math. Phys. **184** (1997), 411–441.
Statement: The American Mathematical Society was created to further mathematical research and scholarship. The journals it publishes are the face the AMS presents to the world. The Editorial Boards Committee has the responsibility of monitoring the Editorial Committees and of submitting nominations of members for these committees to the Council. It is essential that the Editorial Boards Committee ensures that the editorial boards of the AMS journals maintain the high standards of excellence to which the AMS is committed and also reflect the broad diversity of mathematical research conducted by AMS members.
Electronic publishing is rapidly changing the way journals are published. At the same time most of our libraries are going through severe financial problems, caused in large part by the proliferation of journals and the increasing high cost of some journals. (Many mathematics departments are being asked by their libraries to cut journals in an unpleasant yearly ritual.) The AMS has been a leader in electronic publishing, and it is also a low-cost publisher. It is very important that the AMS continues its leadership in electronic publishing and also addresses the problem of high-cost journals.

Ronald Solomon

Professor, The Ohio State University.
Born: December 15, 1948, New York, New York.
Ph.D.: Yale University, 1971.
AMS Committees: *Proceedings* Editorial Committee, 1991– .
Selected Addresses: Special Session on the Second Generation Proof of the Classification of the Finite Simple Groups, San Francisco, January 1995.
Selected Publications: 1. *Maximal 2-components in finite groups*, Comm. Algebra **4** (1976), 561–594. MR **54** #10404; 2. with D. Gorenstein and R. Lyons, *The classification of the finite simple groups*, Math. Surveys Monographs, vol. 40.1, Amer. Math. Soc., Providence, RI, 1994. MR **95m**:20014; 3. with D. Gorenstein and R. Lyons, *The classification of the finite simple groups*, Math. Surveys Monographs, vol. 40.2, Amer. Math. Soc., Providence, RI, 1996. MR **96h**:20032.