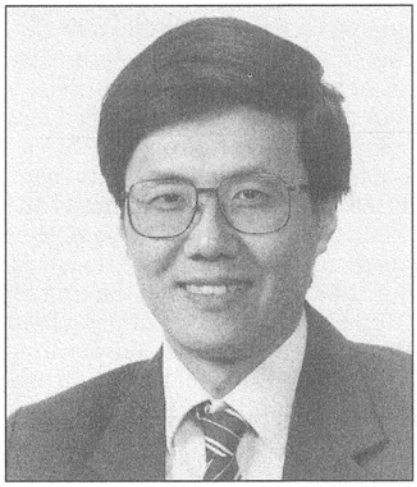
Mathematics People

AMS Centennial Fellowships Awarded

The AMS has awarded four Centennial Fellowships for 1996–1997. The recipients are YI HU of the University of Utah, ROBERT MCCANN of Brown University, ALEXANDER VORONOV of the University of Pennsylvania, and JIAPING WANG of Stanford University.

Yi Hu

Yi Hu received his Ph.D. in 1991 from the Massachusetts Institute of Technology under the supervision of Robert D. MacPherson. After four years as an assistant professor at the University of Michigan, Ann Arbor, he went to visit the University of Utah in 1995. He has held various visiting research positions, including at the Max-Planck-Institute (Bonn), summer 1993, and at the Institut des Hautes Études Scientifiques (Paris), summer 1995.

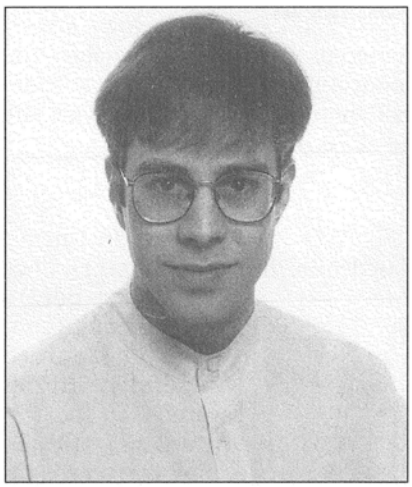


Hu's research has been mainly in algebraic geometry, with close interactions with other branches of geometry. Recently he has been interested in some fundamental questions about various geometrically meaningful compactifications of the spaces of generic geometric objects (in the guises of geometric invariant theory quotients and moduli spaces), focusing on general relations—algebro-geometric and topological—among all different kinds of compactifications.

He is also investigating certain birational transformations among some particular kinds of varieties (e.g., holomorphically symplectic, toric, moduli varieties, and Calabi-Yau manifolds) and certain geometric invariants that are likely to be preserved or controlled under these transformations. He will use his Centennial Fellowship to visit the University of California, Berkeley.

Robert McCann

Robert McCann received his Ph.D. from Princeton University in 1994 under the direction of Elliott Lieb. He has been a Tamarkin assistant professor at Brown University since that time, holding a postdoctoral fellowship from the Natural Sciences and Engineering Research Council of Canada concurrently. At the invitation of Dennis Sullivan, he is spending the spring of 1996 in Paris visiting the Institut des Hautes Études Scientifiques.



In his doctoral dissertation McCann developed a convexity theory which led to the solution of two problems from mathematical physics: the first modelled an interacting gas, while the second involved the shape of crystals in an external field. He has also studied interacting electrons and rotating stars.

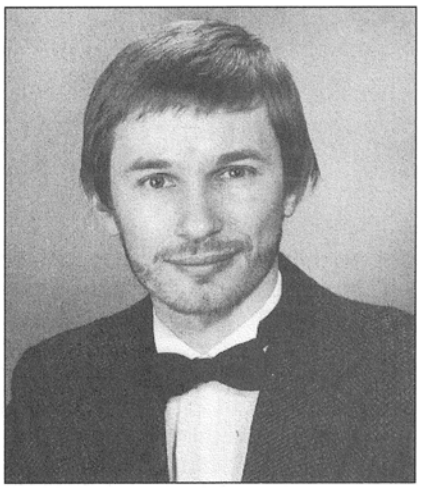
Recently, his research has focused on optimal maps between mass distributions, including problems motivated by economics. His work with Wilfrid Gangbo is yielding results on the classical transportation problem of Monge and Kantorovich. During his Centennial Fellowship tenure, he plans to visit the Courant Institute of Mathematical Sciences and the University of California, Berkeley.

Alexander Voronov

Alexander A. Voronov received his Ph.D. in 1988 from Moscow State University in Russia under the guidance of Yuri I. Manin. After two years at Moscow State University as a junior faculty member, he came to the University of California, Davis, as a visiting assistant professor and a year

later, in 1991, moved to Princeton University as a lecturer. In 1993 he became a lecturer at the University of Pennsylvania.

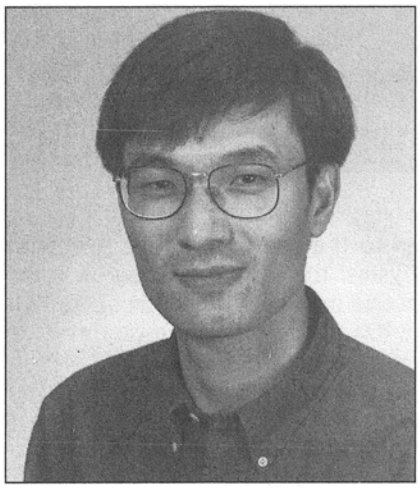
Voronov's research has been in mathematical physics and algebraic geometry, including super algebraic curves and their moduli and semi-infinite cohomology of Lie algebras and manifolds. Recently he has focused on using operads to study moduli spaces of algebraic curves as well as homotopy algebraic structures of the Hochschild complex of an associative algebra and the BRST complex of a conformal field theory.



His research plans also include studying the general deformation problem, as well as deformation quantization and noncommutative geometry at roots of unity. He will use his Centennial Fellowship to visit the Massachusetts Institute of Technology.

Jiaping Wang

Jiaping Wang received his Ph.D. in 1994 from the University of California, Irvine, under the direction of Peter Li. Since then he has been a Szego assistant professor at Stanford University. His research is in geometric analysis with an emphasis on the interaction between analysis and geometry of noncompact manifolds. Recently he has been studying the Dirichlet problem for proper harmonic maps. He will use his Centennial Fellowship to visit the Massachusetts Institute of Technology.



—Allyn Jackson

Please note: Information about the competition for the 1997–1998 AMS Centennial Fellowships will be published in the Mathematics Opportunities section of an upcoming issue of the *Notices*.

Monroe Martin Prize

The fifth Monroe Martin Prize of the University of Maryland, College Park, was presented on February 23, 1996. Two $2,000 awards were made.

The first recipient was ANDREW STUART for his paper "Perturbation theory for infinite dimensional dynamical systems", which appeared in *Advances in Numerical Analysis* (M. Ainsworth, J. Levesley, M. Marle, and W. A. Light, editors, Oxford University Press, 1995). This paper presents a unified approach to the study of the effect of perturbations, including those induced by numerical approximation, on the invariant sets of sectorial evolution equations. The invariant sets studied include equilibria, phase portraits, global unstable manifolds, inertial manifolds, and attractors. Stuart provides a general framework in which the verification of certain standard finite-time error estimates is all that is required to establish perturbation results for the invariant sets. Educated in England, Stuart received his D.Phil. from Oxford University in 1986 and is currently on the faculty of Stanford University.

The second recipient was ZHIHONG (JEFF) XIA for his paper "Arnold diffusion and oscillatory solutions in the planar three-body problem", *Journal of Differential Equations*, volume 110, number 2, pages 289-321. In the three-body problem, the bodies move under Newton's law of mutual gravitational attraction. The restricted three-body problem assigns to one of the bodies an infinitesimal mass, and Poincaré showed that this problem can exhibit chaotic behavior. Xia succeeds in extending Poincaré's result to the case of three bodies with strictly positive mass. The paper includes a detailed analysis of many properties of these systems. After doing his undergraduate work in the People's Republic of China, Xia received his Ph.D. from Northwestern University in 1988 and is currently on the faculty there.

The Monroe Martin Prize was established to honor the outstanding service of Professor Emeritus Monroe H. Martin to the University of Maryland. He was chair of the mathematics department from 1942 until 1954 and the first director of the Institute for Fluid Dynamics and Applied Mathematics (a forerunner of the Institute for Physical Science and Technology) from 1952 until 1968. As on all previous occasions, the presentation of the prizes was made by Martin, now in his 90th year.

—from University of Maryland

Wiles Receives Ostrowski Prize

ANDREW WILES of Princeton University has been awarded the Ostrowski Prize. The prize recognizes "his outstanding work on modular forms and elliptic curves, which led to the final solution of Fermat's problem on the nonexistence of integer solutions to any equation $x^n + y^n = z^n$, n is greater than two."

The Ostrowski Foundation was created by Alexander M. Ostrowski, for many years a professor at the University of Basel. He left his entire estate to the foundation and stip-

ulated that the income should provide a prize for outstanding achievements in mathematics. The prize is awarded every other year and is currently 50,000 Swiss francs (about US $42,000). Previous recipients of the Ostrowski Prize are Louis de Branges (1989), Jean Bourgain (1991), and Miklos Laczkovich and Marina Ratner (1993). The jury for the prize consists of representatives from the universities of Basel, Jerusalem, and Waterloo, and from the academies of Amsterdam and Denmark.

Editor's note: In honor of Wile's recent receipt of the National Academy of Sciences Prize in Mathematics, an article about his work will appear in an upcoming issue of the *Notices*.

—Robert K. Pedersen, President of Ostrowski Prize Jury

Fulbright Awards

The J. William Fulbright Foreign Scholarship Board and the United States Information Agency have announced awards to more than 800 foreign scholars to lecture or conduct research in the United States during the academic year 1995–1996.

Below are the names, permanent affiliations (in parentheses), and host affiliations of the awardees in mathematics.

MUNIR AKHTAR (Islamia University, Pakistan), University of Memphis; H. F. DEISSLER (Freiberg Teachers College, Germany), Stetson University; ANDERS L. FORSGREN (Royal Institute of Technology, Sweden), University of California, San Diego; KALLE KAARLI (University of Tartu, Estonia), Vanderbilt University; MARTIN MARKL (Academy of Sciences of the Czech Republic), University of North Carolina at Chapel Hill; PAUL A. MARTIN (University of Manchester, Britain), Colorado School of Mines; HUGH G. MILLINGTON (University of the West Indies—Cave Hill Campus, Barbados), University of Florida; CHRISTIAN F. SKAU (University of Trondheim, Norway), University of Washington; SVERRE O. SMALO (University of Trondheim, Norway), University of California, Santa Barbara; TZVETOMIR I. TZATCHEV (Mining and Geological University, Bulgaria), University of Delaware; ALEKSANDER WERON (Technical University of Wroclaw, Poland), University of California, Santa Barbara; and DARIUSZ ZAGRODNY (Technical University of Lodz, Poland), University of Washington.

—Chronicle of Higher Learning

NAE Elections

The National Academy of Engineering (NAE) has announced the election of 78 new members and foreign associates. Among these was the computer scientist LEONARD ADLEMAN of the University of Southern California, who was elected "for contributions to the theory of computation and cryptography".

—NAE News Release

Deaths

GEORGE L. BALDWIN, of Lubbock, TX, died on December 23, 1995. Born on November 18, 1926, he was a member of the Society for 6 years.

HANS J. BREMERMANN, professor emeritus of the University of California, Berkeley, died on February 21, 1996. Born on September 14, 1926, he was a member of the Society for 40 years.

FLORENCE M. MEARS, professor emeritus of George Washington University, died on December 2, 1995. She was a member of the Society for 67 years.

IRA ROSENBAUM, of the University of Miami, died on August 15, 1995. Born in 1916, he was a member of the Society for 53 years.

EWA WOJCICKA, of the College of Charleston, died on January 14, 1996. Born in April 1955, he was a member of the Society for 1 year.

ZDZISLAW WYDERKA, of Silesian University, Katowice, Poland, died on February 13, 1996. Born on August 18, 1950, he was a member of the Society for 8 years.