

Journals Published by the American Mathematical Society

Bulletin of the American Mathematical Society

This journal is the official organ of the Society. It reports official acts of the Society and the details of its meetings. It contains some of the officially invited addresses presented before the Society, reviews of advanced mathematical books, and a department of research announcements.

The subscription price is \$12.00 per annual volume of six numbers.

Invited Addresses offered for publication should be sent to MURRAY GERSTENHABER, Department of Mathematics, University of Pennsylvania, Philadelphia, Pennsylvania 19104.

Book Reviews should be sent to GIAN-CARLO ROTA, Mathematics Department, Massachusetts Institute of Technology, Cambridge, Massachusetts 02139.

All Research Announcements should be sent to M. H. PROTTER, Department of Mathematics, University of California, Berkeley, California 94720.

All other communications to the editors should be sent to the Managing Editor, MURRAY GERSTENHABER, at the above address.

Proceedings of the American Mathematical Society

This journal is devoted entirely to research in pure and applied mathematics and is devoted principally to the publication of original papers of moderate length. A department called Shorter Notes was established for the purpose of publishing very short papers of an unusually elegant and polished character, for which there is normally no other outlet.

Papers in algebra, number theory, and algebraic geometry should be sent to ARTHUR P. MATTUCK, Department of Mathematics, Massachusetts Institute of Technology, Cambridge, Massachusetts or IRVING REINER, Department of Mathematics, University of Illinois, Urbana, Illinois; in modern or classical analysis to IRVING GLICKSBERG, Department of Mathematics, University of Washington, Seattle, Washington 98105 or to W. H. J. FUCHS, White Hall, Cornell University, Ithaca, New York 14850; in set-theoretic and general topology to ERNEST A. MICHAEL, Department of Mathematics, University of Washington, Seattle, Washington 98105; in algebraic topology and all other geometry to P. EMERY THOMAS, Department of Mathematics, University of California, Berkeley, California 94720; in applied mathematics, differential equations, and related areas of analysis to WOLFGANG WASOW, Mathematics Department, University of Wisconsin, Madison, Wisconsin 53706; in probability, statistics, and related fields to JOSHUA CHOVER, Mathematics Department, University of Wisconsin, Madison, Wisconsin 53706; in logic, set theory, and related areas to W. W. BOONE, Mathematics Department, University of Illinois, Urbana, Illinois 61801. All other communications should be addressed to the Managing Editor, ARTHUR MATTUCK.

Transactions of the American Mathematical Society

This journal is devoted entirely to research in pure and applied mathematics, and is devoted in general longer papers than the PROCEEDINGS.

Papers in analysis and applied mathematics should be sent to J. J. KOHN, Department of Mathematics, Brandeis University, Waltham, Massachusetts 02154; in topology to FRANKLIN PETERSON, Department of Mathematics, Massachusetts Institute of Technology, Cambridge, Massachusetts 02139; in algebra, number theory, and logic to D. A. BUCHSBAUM, Department of Mathematics, Brandeis University, Waltham, Massachusetts 02154; in geometry and abstract analysis to R. S. PALAIS, Department of Mathematics, Brandeis University, Waltham, Massachusetts 02154; in statistics and probability to H. P. MCKEAN, Department of Mathematics, Rockefeller University, New York, New York 10021; in mathematical logic and foundations to DANA SCOTT, Department of Mathematics, Stanford University, Stanford, California 94305. All other communications to the editors should be addressed to the Managing Editor, DANA SCOTT.

Journals Published by the American Mathematical Society

Soviet Mathematics—Doklady

SOVIET MATHEMATICS—DOKLADY is a translation journal containing the entire pure mathematics section of the DOKLADY AKADEMI NAUK SSSR, the Reports of the Academy of Sciences of the USSR. The DOKLADY for a year contains about 500 articles, each about 4 pages long. Issued bimonthly.

Mathematical Reviews

This journal is devoted to abstracts and reviews of the current mathematical literature of the world. Two volumes of MATHEMATICAL REVIEWS will be published in 1969, Volume 37, and Volume 38. Each volume will consist of 6 regular issues plus an index issue. In each regular issue the abstracts and reviews are grouped under subject headings. Publication began in 1940.

Notices of the American Mathematical Society

This journal announces the programs of the meetings of the Society. It carries the abstracts of all contributed papers presented at the meetings of the Society and publishes news items of interest to mathematical scientists.

All communications should be addressed to the Editor, P.O. Box 6248, Providence, Rhode Island 02904. News items and insertions for each issue must be in the hands of the editor on or before the deadline for the abstracts for the papers to be presented in the meetings announced in that issue. These deadlines are published regularly on the back of the title page.

Mathematics of Computation

A journal devoted to original papers in numerical analysis, the application of numerical methods and high-speed calculator devices, the computation of mathematical tables, the theory of high-speed calculating devices and other aids to computation. In addition it publishes reviews and notes in these and related fields.

Prospective publications should be addressed to the Editor, Professor Eugene Isaacson, Courant Institute of Mathematical Sciences, New York University, 251 Mercer Street, New York, New York 10012. The author may suggest the name of an editor for review of his paper.

New Publications

This quarterly journal announces new books and journals in all fields of higher mathematics, including a section on both forthcoming and recently published books. The information is acquired from several sources, such as pamphlets and catalogs received from publishers and book dealers from many parts of the world.

CONTENTS—*continued from back cover*

Calvin F. K. Jung. On generalized complete metric spaces.	113
John Wells. Differentiable functions on c_0	117
David Drasin and Daniel F. Shea. Asymptotic properties of entire functions external for the $\cos \pi\rho$ theorem.	119
Yum-Tong Siu. Extending coherent analytic sheaves through subvarieties .	123
Matts Essén. A generalization of the Ahlfors-Heins theorem.	127
Hiroshi Fujita. On the nonlinear equations $\Delta u + e^u = 0$ and $\partial v / \partial t = \Delta v + e^v$. .	132
Daniel S. Kahn. Squaring operations in the Adams spectral sequence.	136
Daniel Waterman. W -systems are the Walsh functions.	139
Peter L. Duren. Extension of a theorem of Carleson.	143
Lance W. Small. The embedding problem for Noetherian rings.	147
Morris W. Hirsch and Charles C. Pugh. Stable manifolds for hyperbolic sets.	149
S. M. Shah and S. Y. Trimble. Univalent functions with univalent derivatives.	153
H. T. Banks. A maximum principle for optimal control problems with functional differential systems.	158
V. V. L. N. Rao. On properties of self reciprocal functions.	162
V. J. Mizel. Representation of nonlinear transformations on L^p spaces	164
J. J. Andrews and S. J. Lomonaco. The second homotopy group of spun 2-spheres in 4-space.	169
Richard K. Lashof and Julius L. Shaneson. Classification of knots in codimension two.	171
Council and Board of Trustees—1968.	176

The members of the Council for 1969 are: R. D. Anderson, Louis Auslander, Hyman Bass P. T. Bateman, D. H. Blackwell, Armand Borel, Raoul H. Bott, Felix Browder, William Browder, E. H. Brown, Jr., David Buchsbaum, Paul J. Cohen, H. S. M. Coxeter, Avner Freidman, K. O. Friedrichs, W. H. J. Fuchs, F. W. Gehring, Murray Gerstenhaber, Leonard Gillman, Wallace Givens, Irving Glicksberg, P. R. Halmos, O. G. Harrold, I. N. Herstein, Eugene Isaacson, Victor Klee, J. J. Kohn, Ray A. Kunze, Serge Lang, George Mackey, Saunders MacLane, W. T. Martin, A. P. Mattuck, H. P. McKean, Jr., E. Michael, C. B. Morrey, Jr., J. K. Moser, R. S. Palais, Frank Peterson, R. S. Pierce, Everett Pitcher, Murray Protter, Irving Reiner, Gian-Carlo Rota, J. T. Schwartz, Dana Scott, George Seligman, Stephen Smale, N. E. Steenrod, Michio Suzuki, P. E. Thomas, W. R. Wasow, Bertram Yood, Oscar Zariski.

CONTENTS

January, 1969

H. P. McKean, Jr. A simple model of the derivation of fluid mechanics from the Boltzmann equation	1
The Summer Meeting in Madison	11
The October Meeting in Baltimore	28
The November Meeting in Clemson	29
The November Meeting in Riverside	30
1968 Election of Members of the Council and Board of Trustees	31
Robert J. McEliece and Howard Rumsey, Jr. Sphere-packing in the Hamming metric	32
David Hertzog. Cohomology of certain Steinberg groups	35
H. O. Cordes. An algebra of singular integral operators with two symbol homomorphisms	37
Takashi Ono. On Gaussian sums	43
Leroy H. Walker. Regarding stopping rules for Brownian motion and random walks	46
E. W. Cheney, C. R. Hobby, P. D. Morris, F. Schurer and D. E. Wulbert. On the minimal property of the Fourier projection	51
R. D. Anderson and R. Schori. A factor theorem for Fréchet manifolds	53
Michael Shub. Periodic orbits of hyperbolic diffeomorphisms and flows	57
R. De Sapiro. Manifolds homeomorphic to sphere bundles over spheres	59
R. D. Anderson. Strongly negligible sets in Fréchet manifolds	64
Robert T. Moore. Banach algebras of operators on locally convex spaces	68
R. T. Rockafellar. Convexity properties of nonlinear maximal monotone operators	74
A. L. S. Corner. Additive categories and a theorem of W. G. Leavitt	78
Pasquale Porcelli and H. S. Collins. Ideals in group algebras	83
Robert T. Moore. Adjoints, numerical ranges, and spectra of operators on locally convex spaces	85
Ravindra S. Kulkarni. Curvature structures and conformal transformations	91
Warren Wogen. On generators for von Neumann algebras	95
G. J. Rieger. On polynomials and almost-primes	100
Robert O. Kujala. Functions of finite λ -type in several complex variables	104
J. R. Retherford and R. C. James. Unconditional bases and best approximation in Banach spaces	108

Continued on inside back cover