# Journals Published by the <br> 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 includes in general longer papers than the Proceedings.

Papers in analysis and applied mathematics should be sent to J. J. Korn, 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 <br> American Mathematical Society 

## Soviet Mathematics-Doklady

Soviet Mathematics-Doklady is a translation journal containing the entire pure mathematics section of the Doklady Arademi 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.

## Mathematics of the USSR-Izvestija

This journal is a cover-to-cover translation of Izvestija Akademii Nauk SSSR Serija Matematiceskaja, published bimonthly by the Academy of Sciences of the USSR. It is a journal of current research in all fields of pure mathematics. Starting with Volume 1, Number 1, January-February 1967, which corresponds to the Russian original Tom 31, Number 1, the translation is prepared by the Plenum Publishing Corporation with the cooperation of the American Mathematical Society, and is published bimonthly by the American Mathematical Society.

## Mathematics of the USSR—Sbornik

This journal is a cover-to-cover translation of Matematiceskir Sbornik (New Series), published monthly by the Moscow Mathematical Society and the Academy of Sciences of the USSR. It is a journal of current research in all fields of pure mathematics. The translation is published monthly starting with Volume 1, Number 1, January 1967, which corresponds to the Russian original Tom 72 (114), No. 1.
Paul Hill. A countability condition for primary groups presented by relations of length two ..... 780
R. H. Szczarba. On existence and rigidity of isometric immersions. ..... 783
P. R. Hall. On the space of homeomorphisms of $E^{3}$ ..... 788
William B. Arveson. On subalgebras of $C^{*}$-algebras ..... 790
Walter Rudin. Convex combinations of unimodular functions. ..... 795
Haskell P. Rosenthal. Some linear topological properties of $L^{\infty}$ of a finite measure space ..... 798
J. G. Stampfli. A local spectral theory for operators. II ..... 803
Howard Garland. The spectrum of noncompact $G / \Gamma$ and the cohomology of arithmetic groups ..... 807
Frank Deutsch and Peter D. Morris. On simultaneous approxima- tion and interpolation which preserves the norm ..... 812
T. B. Rushing. Taming codimension three embeddings. ..... 815
J. W. Brace. The space of continuous linear operators as a comple- tion of $E^{\prime} \otimes F$. ..... 821
Haskell P. Rosenthal. On injective Banach spaces and the spaces $C(S)$ ..... 824
Lawrence Corwin. A "functional equation" for measures and a generalization of Gaussian measures ..... 829
John Hollingsworth. Triangulating nonsimply connected manifolds. ..... 833
Dov Aharonov. A note on slit mappings ..... 836
J. J. Uhl, Jr. Applications of Radon-Nikodým theorems to martin- gales of vector valued functions ..... 840
N. M. Rivière. On singular integrals ..... 843
Sidney C. Port and Charles J. Stone. Potential theory for infinitely divisible processes on Abelian groups. ..... 848
Keean Lee. A note on functors Ext over the ring $Z$ ..... 852
Heinz G. Helfenstein. Analytic maps between tori ..... 857
P. M. Prenter. A Weierstrass theorem for normed linear spaces. ..... 860
Chandler Davis and W. M. Kahan. Some new bounds on perturba- tions of subspaces ..... 863
Normal Alling and Newcomb Greenleaf. Klein surfaces and real al- gebraic function fields. ..... 869
Larry Smith. On the construction of the Eilenberg-Moore spectral sequence ..... 873
Bertram Kostant and Stephen Rallis. On orbits associated with symmetric spaces. ..... 879
Bertram Kostant and Stephen Rallis. On representations associated with symmetric spaces ..... 884
Erratum, Volume 75 ..... 888

[^0]
## CONTENTS

## July, 1969

Bertram Kostant. On the existence and irreducibility of certain series of representations ..... 627
Emery Thomas. Vector fields on manifolds ..... 643
Charles B. Morrey, Jr. Differentiability theorems for weak solutions of nonlinear elliptic differential equations ..... 684
Louis Sucheston. Reviews of "A course in probability theory," by Kai Lai Chung and "Probability," by Leo Breiman ..... 706
J. Ian Richards. Review of "An introduction to harmonic analysis," by Yitzhak Katznelson ..... 709
Maria J. Wonenburger. Review of "An introduction to nonassocia- tive algebras," by R. D. Schafer ..... 712
Maria J. Wonenburger. Review of "Noncommutative rings," by I. N. Herstein ..... 714
P. M. Cohn. Review of "Introduction to the theory of abstract algebras," by R. S. Pierce ..... 717
N. S. Trudinger. Review of "Linear and quasilinear elliptic equa- tions," by O. A. Ladyženskaja and N. N. Ural'ceva ..... 720
Victor Klee. Review of "Convex sets," by F. A. Valentine ..... 722
J. W. Berbernes. Review of "Nonlinear two point boundary value problems," by Paul Bailey, Lawrence Shampine, and Paul Waltman ..... 724
The April Meeting in New York ..... 728
Karl Gustafson. On projections of selfadjoint operators and oper- ator product adjoints ..... 739
R. C. Kirby and L. C. Siebenmann. On the triangulation of mani- folds and the Hauptvermutung ..... 742
R. Lashof and M. Rothenberg. Triangulation of manifolds. I . ..... 750
R. Lashof and M. Rothenberg. Triangulation of manifolds. II ..... 755
J. L. Brenner. Some inequalities from switching theory ..... 758
David W. Henderson. Infinite-dimensional manifolds are open sub- sets of Hilbert space ..... 759
Lawrence J. Wallen. Semigroups of partial isometries ..... 763
Charles Fefferman. On some singular convolution operators ..... 765
A. M. Fink. Compact families of almost periodic functions ..... 770
Wolfgang Heil. On $P^{2}$-irreducible 3-manifolds ..... 772
Arthur Mattuck. Ruled surfaces and the Albanese mapping ..... 776


[^0]:    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.

