# 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 Akademir Nauk SSSR, the Reports of the Academy of Sciences of the USSR. The Doklady presents short articles, averaging 3 to 5 pages, covering current research in all fields of pure mathematics. Issued bimonthly in January, March, May, July, September, and November.

Domestic subscriptions, $\$ 17.50$; foreign subscriptions, $\$ 20.00$.
Single issues are $\$ 5.00$. Vols. 1, 2 , and 3 (1960-1962), price per volume $\$ 30.00$.

## 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 1963, Volume 25 and Volume 26. 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.

Prior to 1961 it appeared in eleven single issues. Orders for complete volumes only are accepted. Volumes 1-24 are available at the following prices: Vols. 1-16 (19401955), $\$ 42.00$ each; all other volumes $\$ 50.00$.

## 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.

The subscription price is $\$ 7.00$ per annual volume of seven numbers. A single copy is $\$ 2.00$. Orders for back volumes (back issues of the last two years only are available) are $\$ 14.00$ per volume.

All communications should be addressed to the Editor, 190 Hope Street, Providence 6, Rhode Island. 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. Published by the Society for the National Academy of Sciences-National Research Council.

The subscription price is $\$ 8.00$ per volume of 4 issues. Single copies are $\$ 2.50$. Back issues insofar as they are available: (1943-1962) $\$ 3.00$ per issue; $\$ 12.00$ per volume. Write for specific information concerning availability.

## Chinese Mathematics-Acta

This is a cover-to-cover translation into English of Acta Mathematica Sinica published by Academia Sinica Peking, People's Republic of China. Acta Mathematica Sinica contains current research in all fields of pure mathematics. Subscription price per volume $\$ 20.00$.

Volume 1, 1962 of the translation (corresponding to Volume 10, 1960 of the original) contained three issues. Volume 2, 1963 (corresponding to Volume 11, 1961 of the original) will have four issues. It is planned to publish also Volume 3 of the translation (corresponding to Volume 12 of the original) during the year 1963. In each case the translation will have the same number of issues as the original.

Vol. 1 (1962), \$30.00.

## 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, research problems and a department of research announcements.

The subscription price is $\$ 7.00$ per annual volume of six numbers.
Research Problems and Invited Addresses offered for publication should be sent to Walter Rudin, Department of Mathematics, University of Wisconsin, Madison, Wisconsin; Book Reviews to Felix Browder, Department of Mathematics, Yale University, New Haven, Connecticut. Research Announcements offered for publication should be sent to some member of the Council of the Society, and communicated by him to E. E. Moise, Graduate School of Education, Harvard University, Cambridge 38, Massachusetts. All other communications to the editors should be sent to the Managing Editor, E. E. Moise.

The members of the Council for 1963 are: H. A. Antosiewicz, P. T. Bateman, Lipman Bers, R. P. Boas, H. W. Bode, Raoul Bott, Felix Browder, S. S. Chern, P. E. Conner, C. W. Curtis, D. A. Darling, J. L. Doob, G. F. D. Duff, Eldon Dyer, William Feller, A. M. Gleason, J. W. Green, P. R. Halmos, G. A. Hedlund, M. H. Heins, L. A. Henkin, Edwin Hewitt, A. S. Householder, G. B. Huff, G. A. Hunt, Nathan Jacobson, P. D. Lax, Karel de Leeuw, R. C. Lyndon, H. P. McKean, Jr., L. Markus, W. S. Massey, A. E. Meder, Jr., E. E. Moise, Deane Montgomery, G. D. Mostow, Louis Nirenberg, R. S. Pierce, Everett Pitcher, R. S. Phillips, Alex Rosenberg, Walter Rudin, I. M. Singer, J. D. Swift, Michio Suzuki, C. B. Tompkins, W. R. Wasow, J. V. Wehausen, George Whaples, J. W. T. Youngs, Daniel Zelinsky, Leo Zippin, Antoni Zygmund.

## 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.

The subscription price is $\$ 11.00$ per annual volume of six numbers.
Papers in algebra and number theory should be sent to Alex Rosenberg, Department of Mathematics, Cornell University, Ithaca, New York or George Whaples, Department of Mathematics, Indiana University, Bloomington, Indiana; in probability, real variables, logic, and foundations to P. R. Halmos, Department of Mathematics, University of Michigan, Ann Arbor, Michigan; in abstract analysis to either P. R. Halmos or Alex Rosenberg; in geometry and topology to Eldon Dyer, Eckhart Hall, University of Chicago, Chicago 37, Illinois; in other branches of analysis, applied mathematics, and all other fields to M. H. Heins, Department of Mathematics, University of Illinois, Urbana, Illinois or Frivz John, Courant Institute of Mathematical Sciences, 4 Washington Place, New York 3, New York. All other communications to the editors should be addressed to the Managing Editor, Alex Rosenberg.

## 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.

Four volumes of three numbers each will be published in 1963. The subscription price is $\$ 8.00$ per volume.

Papers in analysis and applied mathematics should be sent to Lipman Bers, Courant Institute of Mathematical Sciences, New York University, New York 3, New York; in topology to W. S. Massey, Department of Mathematics, Yale University, Box 2155, Yale Station, New Haven, Connecticut; in algebra, number theory, and logic to Daniel Zelinsky, Department of Mathematics, Northwestern University, Evanston, Illinois; in geometry and abstract analysis to I. M. Singer, Department of Mathematics, Massachusetts Institute of Technology, Cambridge 39, Massachusetts; in statistics and probability to H. P. McKean, Jr., Department of Mathematics, Massachusetts Institute of Technology, Cambridge 39, Massachusetts. All other communications to the editors should be addressed to the Managing Editor, W. S. Massey.

## CONTENTS—Continued from back cover

Bertram Kostant. Lie group representations on polynomial rings. ..... 518
E. L. Stout. Two theorems concerning functions holo- morphic on multiply connected domains ..... 527
P. F. Baum. Cohomology of homogeneous spaces ..... 531
W. C. Hsiang and R. H. Szczarba. On the embeddability and nonembeddability of certain parallelizable manifolds ..... 534
P. J. Cohen. A minimal model for set theory ..... 537
Peter Crawley and Bjarni Jónsson. Direct decompositions of algebraic systems ..... 541
L. E. Dubins and D. A. Freedman. Random distribution functions ..... 548
R. T. Prosser. On the consistency of quantum field theory ..... 552
G. J. Rieger. On linked binary representations of pairs of integers: some theorems of the Romanov type ..... 558
P. A. Smith. The cohomology of certain orbit spaces ..... 563
Leon Greenberg. Maximal Fuchsian groups ..... 569
Alfred Gray and S. M. Shah. A note on entire functions and a conjecture of Erdös ..... 573
Joseph Lewittes. Gaps at Weierstrass points for the modular group ..... 578
Joram Lindenstrauss. Some results on the extension of operators ..... 582
Louis de Branges. Invariant subspaces of nonselfadjoint transformations ..... 587
L. A. Rubel and A. L. Shields. Bounded approximation by polynomials ..... 591
Donald Sarason. Doubly invariant subspaces of annulus operators ..... 593

## CONTENTS <br> July, 1963

Invited Address
Leo Sario. Complex analytic mappings ..... 439
Research Problems
Richard Bellman. Degrees of noncommutativity ..... 446
A. A. Mullin. Some related number-theoretic functions ..... 446
R. S. L. Srivastava. Function theory ..... 447
The April Meeting in New York ..... 448
The April Meeting in Chicago ..... 463
The April Meeting in New Mexico ..... 464
Research Announcements
D. L. Hanson. A representation theorem for stationary Markov chains. ..... 465
L. E. Baum, J. D. Ferguson and Melvin Katz. Infinitely repeated matrix games for which pure strategies suffice ..... 467
Ralph Abraham. Transversality in manifolds of mappings. ..... 470
Adam Korányi. On the boundary values of holomorphic functions in wedge domains. ..... 475
James Serrin. A Harnack inequality for nonlinear equations ..... 481
M. H. Taibleson. Lipschitz classes of functions and distri- butions in $E_{n}$ ..... 487
David Hayes. Correction to A polynomial analog of the Goldbach conjecture ..... 493
Marvin Marcus. The permanent analogue of the Hadamard determinant theorem ..... 494
R. M. Redheffer. Uniqueness, stability and error estimation. ..... 497
B. F. Jones, Jr. Singular integrals and parabolic equations ..... 501
Lajos Pukanszky. On the Plancherel theorem of the $2 \times 2$ real unimodular group ..... 504
A. Nerode. A decision method for $p$-adic integral zeros of diophantine equations ..... 513

