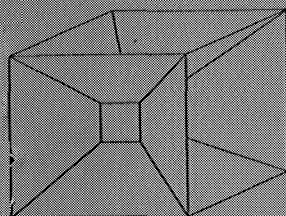


Pacific Journal of Mathematics



L. Argabright, <i>Invariant means on topological semigroups</i> ..	193
William B. Arveson, <i>A theorem of the action of Abelian unitary groups</i>	205
John S. Bradley, <i>Adjoint quasi-differential operators of Euler type</i>	213
Don Deckard and L. K. Durst, <i>Unique factorization in power series rings and semigroups</i>	239
A. Devinatz, <i>The deficiency index of ordinary self-adjoint differential operators</i>	243
R. E. Edwards, <i>Operators commuting with translations</i>	259
Avner Friedman, <i>Differentiability of solution of ordinary differential equations in Hilbert space</i>	267
Boris Garfinkel and Gregory T. McAllister, <i>Singularities in a variational problems with an inequality</i>	273
Seymour Ginsburg and Edwin H. Spanier, <i>Semigroups, Presburger formulas and languages</i>	285
Burrell W. Helton, <i>Integral equations and product integrals</i>	297
Edgar J. Howard, <i>First and second category Abelian groups with the n-adic topology</i>	323
A. H. Kruse and P. W. Liebnitz, <i>An application of a family homotopy extension theorem to ANR spaces</i>	331
A. Marden, I. Richards and B. Rodin, <i>On the regions bounded by homotopic curves</i>	337
Willard Miller, Jr., <i>A branching law for the symplectic groups</i>	341
Marc A. Rieffel, <i>A characterization of the group algebras of finite groups</i>	347
Parfeny P. Saworotnow, <i>On two-sided H-algebras</i>	365
John G. Thompson, <i>Factorizations of p-solvable groups</i>	371
Shih-Hsiung Tung, <i>Harnack's inequalities on the classical Cartan domains II</i>	373
Adil Yaqub, <i>Primal clusters</i>	379

PACIFIC JOURNAL OF MATHEMATICS

EDITORS

H. SAMELSON

Stanford University
Stanford, California

R. M. BLUMENTHAL

University of Washington
Seattle, Washington 98105

*J. DUGUNDJI

University of Southern California
Los Angeles, California 90007

RICHARD ARENS

University of California
Los Angeles, California 90024

ASSOCIATE EDITORS

E. F. BECKENBACH

B. H. NEUMANN

F. WOLF

K. YOSIDA

SUPPORTING INSTITUTIONS

UNIVERSITY OF BRITISH COLUMBIA
CALIFORNIA INSTITUTE OF TECHNOLOGY
UNIVERSITY OF CALIFORNIA
MONTANA STATE UNIVERSITY
UNIVERSITY OF NEVADA
NEW MEXICO STATE UNIVERSITY
OREGON STATE UNIVERSITY
UNIVERSITY OF OREGON
OSAKA UNIVERSITY
UNIVERSITY OF SOUTHERN CALIFORNIA

STANFORD UNIVERSITY
UNIVERSITY OF TOKYO
UNIVERSITY OF UTAH
WASHINGTON STATE UNIVERSITY
UNIVERSITY OF WASHINGTON
* * *
AMERICAN MATHEMATICAL SOCIETY
CHEVRON RESEARCH CORPORATION
TRW SYSTEMS
NAVAL ORDNANCE TEST STATION

Mathematical papers intended for publication in the *Pacific Journal of Mathematics* should be typewritten (double spaced). The first paragraph or two must be capable of being used separately as a synopsis of the entire paper. It should not contain references to the bibliography. Manuscripts may be sent to any one of the four editors. All other communications to the editors should be addressed to the managing editor, Richard Arens at the University of California, Los Angeles, California 90024.

50 reprints per author of each article are furnished free of charge; additional copies may be obtained at cost in multiples of 50.

The *Pacific Journal of Mathematics* is published monthly. Effective with Volume 16 the price per volume (3 numbers) is \$ 8.00; single issues, \$ 3.00. Special price for current issues to individual faculty members of supporting institutions and to individual members of the American Mathematical Society: \$ 4.00 per volume; single issues \$ 1.50. Back numbers are available.

Subscriptions, orders for back numbers, and changes of address should be sent to Pacific Journal of Mathematics, 103 Highland Boulevard, Berkeley 8, California.

Printed at Kokusai Bunken Insatsusha (International Academic Printing Co., Ltd.), No. 6, 2-chome, Fujimi-cho, Chiyoda-ku, Tokyo, Japan.

PUBLISHED BY PACIFIC JOURNAL OF MATHEMATICS, A NON-PROFIT CORPORATION

The Supporting Institutions listed above contribute to the cost of publication of this Journal, but they are not owners or publishers and have no responsibility for its content or policies.

* Paul A. White, Acting Editor until J. Dugundji returns.