

Pacific Journal of Mathematics

Richard Bouldin, <i>The perturbation of the singular spectrum</i> ...	569
H. D. Brunk and S. Johansen, <i>A generalized Radon-Nikodym derivative</i>	585
H. W. Davis, F. J. Murray and J. K. Weber, Jr., <i>Families of L_p-spaces with inductive and projective topologies</i>	619
Esmond DeVun, <i>Special semigroups on the two-cell</i>	639
M. Eisenberg and J. H. Hedlund, <i>Expansive automorphisms of Banach spaces</i>	647
F. F. Gulick, <i>Actions of functions in Banach algebras</i>	657
Douglas Harris, <i>Regular-closed spaces and proximities</i>	675
N. L. Johnson, <i>Derivable semi-translation planes</i>	687
D. E. Knuth, <i>Permutations, matrices, and generalized young tableaux</i>	709
H. F. Kreimer, <i>On the Galois theory of separable algebras</i> ..	729
Y.-F. Lin and D. A. Rose, <i>Ascoli's theorem for spaces of multifunctions</i>	741
David London, <i>Rearrangement inequalities involving convex functions</i>	749
Louis Pigno, <i>A multiplier theorem</i>	755
Helga Schirmer, <i>Coincidences and fixed points of multifunctions into trees</i>	759
Richard Scoville, <i>Some measure algebras on the integers</i>	769
R. E. Showalter, <i>Local regularity of solutions of Sobolev-Galpern partial differential equations</i>	781
A. J. Sieradski, <i>Twisted self-homotopy equivalences</i>	789
J. H. Smith, <i>On S-units almost generated by S-units of subfields</i>	803
Masamichi Takesaki, <i>Algebraic equivalence of locally normal representations</i>	807
J. E. Valentine, <i>An analogue of Ptolemy's theorem and its converse in hyperbolic geometry</i>	817
D. L. Winter, <i>Solvability of certain p-solvable linear groups of finite order</i>	827

PACIFIC JOURNAL OF MATHEMATICS

EDITORS

H. SAMELSON
Stanford University
Stanford, California 94305

J. DUGUNDJI
Department of Mathematics
University of Southern California
Los Angeles, California 90007

RICHARD PIERCE
University of Washington
Seattle, Washington 98105

RICHARD ARENS
University of California
Los Angeles, California 90024

ASSOCIATE EDITORS

E. F. BECKENBACH

B. H. NEUMANN

F. WOLE

K. YOSHIDA

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 WEAPONS CENTER

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.

Mathematical papers intended for publication in the *Pacific Journal of Mathematics* should be in typed form or offset-reproduced, (not dittoed), double spaced with large margins. Underline Greek letters in red, German in green, and script in blue. The first paragraph or two must be capable of being used separately as a synopsis of the entire paper. The editorial "we" must not be used in the synopsis, and items of the bibliography should not be cited there unless absolutely necessary, in which case they must be identified by author and Journal, rather than by item number. Manuscripts, in duplicate if possible, may be sent to any one of the four editors. Please classify according to the scheme of Math. Rev. Index to Vol. 39. All other communications to the editors should be addressed to the managing editor, Richard Arens, University of California, Los Angeles, California, 90024.

50 reprints are provided free for each article; 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, California, 94708.

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

Printed at Kokusai Bunken Insatsusha (International Academic Printing Co., Ltd.), 7-17, Fujimi 2-chome, Chiyoda-ku, Tokyo, Japan.