

**Pacific
Journal of
Mathematics**

VOLUME LXXI

1977

PACIFIC JOURNAL OF MATHEMATICS

EDITORS

RICHARD ARENS (Managing Editor)

University of California
Los Angeles, California 90024

C. W. CURTIS

University of Oregon
Eugene, OR 97403

C. C. MOORE

University of California
Berkeley, CA 94720

J. DUGUNDJI

Department of Mathematics
University of Southern California
Los Angeles, California 90007

R. FINN AND J. MILGRAM

Stanford University
Stanford, California 94305

ASSOCIATE EDITORS

E. F. BECKENBACH

B. H. NEUMANN

F. WOLF

K. YOSHIDA

SUPPORTING INSTITUTIONS

UNIVERSITY OF BRITISH COLUMBIA
CALIFORNIA INSTITUTE OF TECHNOLOGY
UNIVERSITY OF CALIFORNIA
MONTANA STATE UNIVERSITY
UNIVERSITY OF NEVADA, RENO
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
NAVAL WEAPONS CENTER

CONTENTS

C. D. Aliprantis and O. Burkinshaw, <i>On universally complete Riesz spaces</i>	1
K. Alladi and P. Erdős, <i>On an additive arithmetic function</i> . . .	275
J. Bailey and D. Rolfsen, <i>An unexpected surgery construction of a lens space</i>	295
S. R. Bernfeld and J. Chandra, <i>Minimal and maximal solutions of nonlinear boundary value problems</i>	13
L. Brenton, <i>On the Riemann-Roch equation for singular complex surfaces</i>	299
J. G. Brookshear, <i>Projective ideals in rings of continuous functions</i>	313
L. G. Brown, <i>Stable isomorphism of hereditary subalgebras of C^*-algebras</i>	335
L. G. Brown, P. Green and M. A. Rieffel, <i>Stable isomorphism and strong Morita equivalence of C^*-algebras</i>	349
N. Burgoyne, R. Griess and R. Lyons, <i>Maximal subgroups and automorphisms of Chevalley groups</i>	365
O. Burkinshaw, See C. D. Aliprantis and O. Burkinshaw	
Y. K. Chan, <i>Constructive foundations of potential theory</i> . . .	405
J. Chandra, See S. R. Bernfeld and J. Chandra	
J. H. E. Cohn, <i>The length of the period of the simple continued fraction of $d^{1/2}$</i>	21
E. V. Dudley, <i>Sidon sets associated with a closed subset of a compact abelian group</i>	33
P. Erdős, See K. Alladi and P. Erdős	
L. Finkelstein, <i>Finite groups with a standard component of type J_4</i>	41
P. Fletcher and W. F. Lindgren, <i>On $w\Delta$-spaces, $w\sigma$-spaces and Σ^*-spaces</i>	419
L. M. Friedler and D. H. Pettey, <i>Inverse limits and mappings of minimal topological spaces</i>	429
P. Green, See L. G. Brown, P. Green and M. A. Rieffel	
R. Griess, See N. Burgoyne, R. Griess and R. Lyons	
R. E. Hartwig and J. Luh, <i>A note on the group structure of unit regular ring elements</i>	449
L. Hay, A. B. Manaster and J. G. Rosenstein, <i>Concerning partial recursive similarity transformations of linearly ordered sets</i>	57
I. M. Isaacs, <i>Real representations of groups with a single involution</i>	463
N. P. Jewell, <i>The existence of discontinuous module derivations</i> .	465
R. Kane, <i>On loop spaces without p torsion II</i>	71

W. A. Kirk and R. Schöneberg, <i>Some results on pseudo-contractive mappings</i>	89
P. A. Leonard and K. S. Williams, <i>The quadratic and quartic character of certain quadratic unit I</i>	101
W. F. Lindgren, See P. Fletcher and W. F. Lindgren	
A. M. Lopez, Jr., <i>The maximal right quotient semigroup of a strong semilattice of semigroups</i>	477
J. Luh, See R. E. Hartwig and J. Luh	
R. Lyons, See N. Burgoyne, R. Griess and R. Lyons	
A. B. Manaster, See L. Hay, A. B. Manaster and J. G. Rosenstein	
D. McGavran, <i>T^n-actions on simply connected $(n + 2)$-manifolds</i> .	487
C. A. Micchelli and A. Pinkus, <i>Total positivity and the exact n-width of certain sets in L^1</i>	499
L. C. Moore, Jr., <i>A comparison of the relative uniform topology and the norm topology in a normed Riesz space</i>	107
M. Petrich, <i>Maximal submonoids of the translational hull</i> . . .	119
D. H. Pettey, See L. M. Friedler and D. H. Pettey	
A. Pinkus, See C. A. Micchelli and A. Pinkus	
M. Ramras, <i>Constructing new R-sequences</i>	133
B. K. Ray and B. E. Rhoades, <i>Fixed point theorems for mappings with a contractive iterate</i>	517
B. E. Rhoades, See B. K. Ray and B. E. Rhoades	
F. Richman and E. A. Walker, <i>Ext in pre-abelian categories</i> . .	521
M. A. Rieffel, See L. G. Brown, P. Green and M. A. Rieffel	
D. Riffelmacher, <i>Multiplication alteration and related rigidity properties of algebras</i>	139
R. C. Roan, <i>Weak* generators of H^∞ and l^1</i>	537
D. Rolfsen, See J. Bailey and D. Rolfsen	
J. G. Rosenstein, See L. Hay, A. B. Manaster and J. G. Rosenstein	
J. Rosiński and W. A. Woyczyński, <i>Weakly orthogonally additive functionals, white noise integrals and linear Gaussian stochastic processes</i>	159
S. Saitoh, <i>The exact Bergman kernel and the kernels of Szegö type</i>	545
R. Sato, <i>Invariant measures for ergodic semigroups of operators</i> .	173
R. Schöneberg, See W. A. Kirk and R. Schöneberg	
P. J. Slater and W. Y. Vélez, <i>Permutations of the positive integers with restrictions on the sequence of differences</i> .	193
E. Stevenson, <i>Integral representations of algebraic cohomology classes on hypersurfaces</i>	197
L. Swanson, <i>Generators of factors of Bernoulli shifts</i>	213
N. Th. Varopoulos, <i>BMO functions and the \bar{d}-equation</i>	221
W. Y. Vélez, See P. J. Slater and W. Y. Vélez	
E. A. Walker, See F. Richman and E. A. Walker	

- K. S. Williams, See P. A. Leonard and K. S. Williams
W. A. Woyczyński, See J. Rosiński and W. A. Woyczyński
K.-W. Yang, *Operators invertible modulo the weakly compact operators* 559

Pacific Journal of Mathematics

C. D. Aliprantis and O. Burkinshaw, <i>On universally complete Riesz spaces</i>	1
S. R. Bernfeld and J. Chandra, <i>Minimal and maximal solutions of nonlinear boundary value problems</i>	13
J. H. E. Cohn, <i>The length of the period of the simple continued fraction of $d^{1/2}$</i>	21
E. V. Dudley, <i>Sidon sets associated with a closed subset of a compact abelian group</i>	33
L. Finkelstein, <i>Finite groups with a standard component of type J_4</i>	41
L. Hay, A. B. Manaster and J. G. Rosenstein, <i>Concerning partial recursive similarity transformations of linearly ordered sets</i>	57
R. Kane, <i>On loop spaces without p torsion II</i>	71
W. A. Kirk and R. Schöneberg, <i>Some results on pseudo-contractive mappings</i>	89
P. A. Leonard and K. S. Williams, <i>The quadratic and quartic character of certain quadratic unit I</i>	101
L. C. Moore, Jr., <i>A comparison of the relative uniform topology and the norm topology in a normed Riesz space</i>	107
M. Petrich, <i>Maximal submonoids of the translational hull</i>	119
M. Ramras, <i>Constructing new R-sequences</i>	133
D. Riffelmacher, <i>Multiplication alteration and related rigidity properties of algebras</i>	139
J. Rosiński and W. A. Woyczyński, <i>Weakly orthogonally additive functionals, White noise integrals and linear Gaussian stochastic processes</i>	159
R. Sato, <i>Invariant measures for ergodic semigroups of operators</i>	173
P. J. Slater and W. Y. Vélez, <i>Permutations of the positive integers with restrictions on the sequence of differences</i>	193
E. Stevenson, <i>Integral representations of algebraic cohomology classes on hypersurfaces</i>	197
L. Swanson, <i>Generators of factors of Bernoulli shifts</i>	213
N. Th. Varopoulos, <i>BMO functions and the $\bar{\delta}$-equation</i>	221

PACIFIC JOURNAL OF MATHEMATICS

EDITORS

RICHARD ARENS (Managing Editor)

University of California
Los Angeles, CA 90024

CHARLES W. CURTIS

University of Oregon
Eugene, OR 97403

C. C. MOORE

University of California
Berkeley, CA 94720

J. DUGUNDJI

Department of Mathematics
University of Southern California
Los Angeles, CA 90007

R. FINN and J. MILGRAM

Stanford University
Stanford, CA 94305

ASSOCIATE EDITORS

E. F. BECKENBACH

B. H. NEUMANN

F. WOLF

K. YOSHIDA

SUPPORTING INSTITUTIONS

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

UNIVERSITY OF SOUTHERN CALIFORNIA
STANFORD UNIVERSITY
UNIVERSITY OF HAWAII
UNIVERSITY OF TOKYO
UNIVERSITY OF UTAH
WASHINGTON STATE UNIVERSITY
UNIVERSITY OF WASHINGTON
* * *
AMERICAN MATHEMATICAL SOCIETY

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. Please do not use built up fractions in the text of your manuscript. You may however, use them in the displayed equations. 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. 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 triplicate, may be sent to any one of the editors. Please classify according to the scheme of Math. Reviews, Index to Vol. **39**. All other communications should be addressed to the managing editor, or Elaine Barth, University of California, Los Angeles, California, 90024.

The Pacific Journal of Mathematics expects the author's institution to pay page charges, and reserves the right to delay publication for nonpayment of charges in case of financial emergency.

100 reprints are provided free for each article, only if page charges have been substantially paid. Additional copies may be obtained at cost in multiples of 50.

The *Pacific Journal of Mathematics* is issued monthly as of January 1966. Regular subscription rate: \$72.00 a year (6 Vols., 12 issues). Special rate: \$36.00 a year to individual members of supporting institutions.

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.).
8-8, 3-chome, Takadanobaba, Shinjuku-ku, Tokyo 160, Japan.

Copyrit © 1975 by Pacific Journal of Mathematics
Manufactured and first issued in Japan