The

Michigan Mathematical Journal

MANAGING EDITOR

James Kister

ASSOCIATE EDITORS

Morton Brown

Dan Burns

Melvin Hochster

David Masser

BUSINESS MANAGER

Robert W. Puster

DEPARTMENT OF MATHEMATICS
THE UNIVERSITY OF MICHIGAN

ANN ARBOR, MICHIGAN, U.S.A.

ISSN 0026-2285

The Michigan Mathematical Journal is published by the Department of Mathematics at the University of Michigan and endeavors to publish significant research articles in all areas of mathematics. One volume is published each year, and each volume consists of three issues. The subscription price is \$40 per volume (postage included); single issues may be purchased for \$14. Subscriptions intended for the private use of individuals are available at the reduced rate of \$20 per volume.

Subscription orders should be sent to the Business Manager, Michigan Mathematical Journal, Department of Mathematics, University of Michigan, Ann Arbor, Michigan, 48109. All subscriptions must be prepaid in U.S. funds. The Journal will accept payment for subscriptions one, two, or three years in advance. Checks and money orders should be made payable to the Michigan Mathematical Journal.

Volumes 10 through 23 (1963–1976) consist of four issues per volume; earlier volumes vary in size from one to three issues. Volumes 10 through 34 may be purchased from the publisher at the price of \$30 per volume. Volumes 1 through 9 are no longer available from the University of Michigan; they may be purchased from the Johnson Reprint Corporation, 111 Fifth Avenue, New York, N.Y., 10003.

To submit a paper for publication, an author should send two copies of the manuscript to the Managing Editor, Michigan Mathematical Journal, University of Michigan, Ann Arbor, Michigan, 48109. The submission of a paper implies the author's assurance that it has not been copyrighted, published, or submitted for publication elsewhere. Preference will be given to manuscripts between ten and forty pages in length. All authors of papers accepted for publication will be required to sign a transfer of copyright agreement.

An author will receive 100 offprints of his published article; joint authors will share 100 copies. To help defray the cost of publication of the Journal, page charges of \$25 per printed page will be billed to the author's institution. If the institution is unable to pay these charges, it will be billed for the cost of the offprints alone. In exceptional cases, the publishers will waive all charges.

Authors should strive for expository clarity and good literary style. Manuscripts lacking in these respects will not be published. Manuscripts submitted for publication should be neatly typed on one side of the page only, double spaced (including references), with generous margins. Diagrams should be drawn with black India ink on separate sheets of glossy white paper and be suitable for photographic reproduction. Hand inserted symbols should be well-spaced and legible; unusual symbols and complicated combinations of symbols should be avoided. Acknowledgments of grant support should be placed after the references, which should be in alphabetical-chronological order. Abbreviations of names of journals and references to books should follow the standard form established by Mathematical Reviews.

Copyright © the Regents of The University of Michigan, A Michigan Constitutional Corporation, 1988

CONTENTS

PAGE
Homomorphisms between algebras of differentiable functions in infinite dimensions
Richard M. Aron, Javier Gomez, and Jose G. Llavona
Some remarks on positively curved 4-manifolds Walter Seaman
Closed ideals in convolution algebras and the Laplace transform Elizabeth Strouse
The singular set of a nonlinear elliptic operator P. T. Church and J. G. Timourian
Lattices of a Lie group and Seifert fibrations Masayuki Yamasaki
A boundedness theorem for L^1/H_0^1 $José\ L.\ Fernández \qquad \qquad$
A Newlander–Nirenberg theorem for manifolds with boundary David Catlin
General elements and joint reductions D. Rees and Judith D. Sally
The numerical radius of a commuting product *Vladimír Müller
Numerical radii of zero-one matrices Kenneth R. Davidson and John A. R. Holbrook
A stable splitting for the mapping class group R. M. Charney and F. R. Cohen
Curves length-minimizing modulo ν in \mathbb{R}^n September 1. Jeff Abrahamson
Integral domains in which each <i>t</i> -ideal is divisorial Evan Houston and Muhammad Zafrullah
Lipschitz spaces and spaces of harmonic functions in the unit disc Miroslav Pavlović
The boundary behavior of Bloch functions and univalent functions J. M. Anderson and L. D. Pitt