## NAGOYA MATHEMATICAL JOURNAL

VOL. 60

February 1976

PUBLISHED BY
DEPARTMENT OF MATHEMATICS, FACULTY OF SCIENCE
NAGOYA UNIVERSITY

Correspondences concerning subscription, and back issues of the journal should be addressed to

KINOKUNIYA BOOK-STORE CO., LTD. 17-7 Shinjuku 3-chome, Shinjuku-ku TOKYO 160-91 JAPAN

or

KINOKUNIYA BOOK STORES OF AMERICA CO., LTD. West Bldg., Japanese Cultural and Trade Center 1581 Webster St., San Francisco, CALIFORNIA 94115, U.S.A.

The annual subscription price for 1974 is \$83.20

## NAGOYA MATHEMATICAL JOURNAL

VOL. 60

February 1976

## Edited by

TAKEYUKI HIDA, NOBORU ITO, TOMIO KUBOTA (Managing Editor),
HIDEYUKI MATSUMURA, HISASI MORIKAWA, AKIHIKO MORIMOTO,
KIYOSHI NOSHIRO, KATUZI ONO, YOSHIHIRO SHIKATA,
KÔSAKU YOSIDA

PUBLISHED BY
DEPARTMENT OF MATHEMATICS, FACULTY OF SCIENCE
NAGOYA UNIVERSITY

Nagoya Mathematical Journal is, in principle, the official organ of the Department of Mathematics, Nagoya University, designed solely for the publication of research papers. However, some invited papers and other original papers in mathematics from all over the world are also regularly published in Nagoya Mathematical Journal. Currently, 4 volumes are published each year.

All manuscripts should be typewritten in English, French, or German with sufficient space between lines, and special letters such as bold-face, German, Greek, and script should be clearly marked. All single letters used in formulas will appear in italic, and mathematical symbols will appear in the standard style usual for mathematical literature. Therefore, it is not required to mark such letters and symbols. Instructions which conflict with the general printing rules of the journal will not be accepted. For example, each paragraph title should appear in bold-face. Good reproductions of a typewritten manuscript are acceptable.

As soon as we receive a manuscript, a receipt will be sent to the author. When a manuscript has been sent to a referee, the author will receive another notice. These receipts and notices, however, do not mean anything regarding the acceptability of the paper for publication. If the editorial committee has decided to accept a paper, the author will receive a notice containing the number of the volume in which the paper will appear.

Each author, as well as each co-author, will have 100 reprints, while only one set of proof will be prepared per paper for proof-reading by the author(s). Therefore, a joint paper must carry instructions as to whom the proof should be sent. Attached to the proof, an order form will be sent to the author for the additional reprints which are available at approximately  $3\phi$  per page.

The actual business of the Nagoya Mathematical Journal is performed by the managing editor with the cooperation of editors residing in Nagoya.

The manuscript and general correspondence should be addressed to: Managing editor, Nagoya Mathematical Journal, Department of Mathematics, Faculty of Science, Nagoya University, Chikusa-ku, Nagoya, 464, Japan.

## CONTENTS

Some relations between differential geometric invariants and topological invariants of submanifoldsBY. CHEN	1
The asymptotic distribution on eigenvalues of the Laplace operator in an unbounded domainH. TAMURA	7
Symmetry and separation of variables for the Helmholtz and Laplace equations	35
Cusps on boundaries of Teichmüller spaces	81
The Cameron-Storvick function space integral: An $L(L_p, L_p)$ theoryG. W. Johnson and D. L. Skoug	93
Two theorems on excellent ringsS. GRECO	139
Regularity of solutions for quasi-linear parabolic equations Y. IKEDA	151
The ring of algebraic correspondences on a generic curve of genus $g$	173
A characterization of the Veronese varietiesK. Nomizu	181
Small Random perturbation of dynamical systems with reflecting boundary R. F. Anderson and S. Orey	189
Errata: On a Θ-Weyl sum (Nagoya Math. J. Vol. 52 (1973), 163–172)	217
Corrections to my paper "linear imbeddings of self-dual cones" (Nagoya Math. J. Vol. 46 (1972), 121–145) I. SATAKE	219