

NAGOYA
MATHEMATICAL JOURNAL

VOL. 73

March 1979

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 1978 is about \$ 83.00

NAGOYA
MATHEMATICAL JOURNAL

VOL. 73

March 1979

Edited by

KAZUHIKO AOMOTO, TAKEYUKI HIDA, NOBORU ITO, TOMIO KUBOTA
(Managing Editor), HIDEYUKI MATSUMURA, HISASI MORIKAWA,
AKIHIKO MORIMOTO, 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¢ 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

On bimeromorphic automorphisms of hyperbolic complex spaces	A. KODAMA	1
The coerciveness for integro-differential quadratic forms and Korn's inequality	Y. KATO	7
Equations de Lie invariantes par un pseudogroupe de Lie	O. R. ABIB	29
The structure of the multiplicative group of residue classes modulo p^{N+1}	N. NAKAGOSHI	41
On the module structure in a cyclic extension over a p -adic num- ber field	Y. MIYATA	61
On the decay of solutions for some nonlinear evolution equations of second order	Y. YAMADA	69
A numerical criterion of quasi-abelian surfaces	S. IITAKA	99
On zeta functions associated with quadratic forms of variable coefficients	T. SUZUKI	117
Tensor products of positive definite quadratic forms IV	Y. KITAOKA	149
Distributions with automorphy and Dirichlet series	T. SUZUKI	157
Projective invariant metrics for Einstein spaces	S. KOBAYASHI	171
On the geometry of some Siegel domains	R. ZELOW (LUNDQUIST)	175