# Glasgow Mathematical Journal

## CONTENTS

<b>D. B. McAlister</b> , <i>E</i> -unitary inverse semigroups over semilattices	1
Robert W. Irving, A bipartite Ramsey problem and the Zarankiewicz	
numbers	13
J. Swetits, A characterization of a class of barrelled sequence spaces	27
W. W. Stothers, Subgroups of infinite index in the modular group	33
Abdul Majeed and A. W. Mason, Solvable-by-finite subgroups of GL(2, F)	45
Louis Pigno, Fourier-Stieltjes transforms which vanish at infinity off certain	
sets	49
<b>B.</b> Nagy, On the spectra of prespectral operators	57
P. S. Venkatesan, On right unipotent semigroups II	63
J. S. Lowndes, Solution of an integral equation	69
George T. Georgantas, Derivations in central separable algebras	75
D. A. Jordan, Primitive skew Laurent polynomial rings	79
D. G. Larman, On a conjecture of Lindenstrauss and Perles in at most 6	
dimensions	87
J. Kyle, Ranges of Lyapunov transformations for Hilbert space	99

# SCOTTISH ACADEMIC PRESS LIMITED 33 MONTGOMERY STREET EDINBURGH EH7 5JX

### **GLASGOW MATHEMATICAL JOURNAL**

The Glasgow Mathematical Journal is a continuation of the Proceedings of the Glasgow Mathematical Association, founded in 1952 by the late Professor T. M. MacRobert. It is published with the support of the University Court of the University of Glasgow. The Glasgow Mathematical Journal is published in Parts twice yearly, in January and July; two Parts complete a Volume of approximately 200 pages.

The prepaid subscription for each Volume is  $\pounds 10.00$  in U.K., \$20.00 in U.S.A., post free. Single parts may be supplied at a cost of  $\pounds 5.00$  in U.K., \$10.00 in U.S.A., net.

Copies may be ordered direct from the publisher or from any bookseller.

#### Information for Contributors

While the *Glasgow Mathematical Journal* is intended primarily for Pure Mathematics, papers on Applied Mathematics will also be accepted. Manuscripts from all parts of the world will be welcomed and given careful consideration.

Manuscripts, preferably typed, should be prepared so as to conform with the practice in current numbers of the *Journal*, especially with regard to line illustrations, references, tables and summaries. The name of the author and the date of the receipt of the manuscript will be printed under the title. Text figures must be suitable for line block reproduction, lettered in pencil, numbered, and separated from the text but allocated clearly to sections of the text.

References should be placed at the end of the paper, arranged and numbered in alphabetical order. In the text, reference numbers should be enclosed in square brackets and underlined, to distinguish them from formula numbers, which should be quoted in round brackets. The following particulars should be given, in the order indicated:

for references to books—author, title, edition, place of publication, year of publication, page reference;

for references to articles in periodicals—author, title of article, short title of periodical, series no. (if any), volume no., year, pagination.

A proof is supplied once in galley form, together with an Order Form for offprints. Offprints are supplied free to the number of twenty-five; additional copies, if ordered prior to publication, will be supplied, at cost, at the request of the contributor. Excessive corrections may be charged to the author.

> Manuscripts should be sent to: THE EDITORS GLASGOW MATHEMATICAL JOURNAL DEPARTMENT OF MATHEMATICS UNIVERSITY OF GLASGOW, GLASGOW G12 8QW