THE JOURNAL of THE AUSTRALIAN MATHEMATICAL SOCIETY

VOLUME VIII - PART 1

FEBRUARY 1968

John J. Mahony	Obituary: Harris Charles Levey	1
H. A. BUCHDAHL and		
W. J. LAND	The relativistic incompressible sphere	6
S. J. Bernau	The square root of a positive self-adjoint operator	17
YF. LIN	Relations on topological spaces: Urysohn's lemma	37
D. G. JAMES	Transitivity in integral symplectic forms	43
John Poland	Two problems on finite groups with k con- jugate classes	49
T. J. DICKSON	A sufficient condition for an extreme covering of n-space by spheres	56
John M. Blatt	Statistics of fragments from enzyme-induced breakup of co-polymer chains	63
VISHWA CHANDER DUMIR	Positive values of inhomogeneous quaternary quadratic forms, I	87
R. A. Alo and H. L. Shapiro	A note on compactifications and semi-normal spaces	102
A. RAN	A non-embeddable composite of embeddable functions	109
A. W. J. STODDART	An existence theorem for optimal stochastic programming	114
S. J. Bernau	An unbounded spectral mapping theorem	119
PAUL M. WEICHSEL	Corrigendum: On metabelian p-groups	128

Published for

THE AUSTRALIAN MATHEMATICAL SOCIETY by Wolters-Noordhoff NV - Groningen - The Netherlands

OFFICERS OF THE SOCIETY

President: Vice-Presidents:

Treasurer: Secretary: Editor: Assistant Editor: H. O. LANCASTER (N.S.W.) B. H. NEUMANN (A.C.T.) A. F. PILLOW (Queensland) C. S. DAVIS (Queensland) W. PYE (Victoria) G. B. PRESTON (Victoria) M. A. B. DEAKIN (Victoria)

Ordinary Members, Second term: D. H. Row (Tasmania)

H. S. GREEN (S.A.)

J. H. MICHAEL (S.A.)

First term: J. P. O. SILBERSTEIN (W.A.)

R. F. E. VAN DER BORGHT (Victoria)

M. F. NEWMAN (A.C.T.)

THE JOURNAL

Editor: G. B. Preston Associate Editors: R. F. E. Van der Borght, E. Strzelecki, G. A. Watterson

Selection of papers for publication is made by the Editor with the assistance of the Associate Editors. Manuscripts for publication should be sent either to the Editor or to one of the Associate Editors, at the address:

Journal of the Australian Mathematical Society, Department of Mathematics, Monash University, Clayton, Victoria 3168, Australia.

Intending authors are asked to read the section "Preparation of Manuscripts" on the inside back cover of this issue.

Correspondence concerning papers after their acceptance for publication should be addressed to the Assistant Editor at the same address. Authors of papers printed in the Journal receive 50 off-prints of their papers free; additional off-prints may be ordered at cost. Excessive costs incurred by the Society through corrections or withdrawal of articles may be charged to the authors concerned.

All subscriptions and correspondence connected with accounts should be addressed to the Treasurer of the Society; and all other correspondence (such as orders for the Journal, and correspondence concerning exchanges), should be addressed to the Business Manager. The address in both cases is: The Australian Mathematical Society, Department of Mathematics, University of Queensland, St. Lucia, Queensland 4067, Australia.

Each volume of the Journal consists of four parts. The price per volume is \$ 15.00 Australian.

RECIPROCITY AGREEMENTS

The Australian Mathematical Society has made Reciprocity Agreements with the American Mathematical Society, the Edinburgh Mathematical Society, the London Mathematical Society, the Deutsche Mathematiker Vereinigung and the Islenzka Staerdfraedafelagid using the agreement with the American Mathematical Society as a model. Under this agreement, members of these societies not normally resident in Australia may join the Australian Mathematical Society at half the current rates. Such members will not have the right to vote in the Society or have any other financial commitment. They will receive copies of the Journal free.