

THE JOURNAL *of* THE AUSTRALIAN MATHEMATICAL SOCIETY

VOLUME XVIII - PART 2

SEPTEMBER 1974

D. N. SARKHEL	<i>On ω-approximately continuous Perron-Stieltjes and Denjoy-Stieltjes integral</i>	129
PETER G. DODDS	<i>The order dual of an abelian von Neumann algebra.</i>	153
T. B. MUENZENBERGER and R. E. SMITHSON	<i>Compactness and connectedness as composable properties</i>	161
DAVID A. HILL	<i>Restricted homological properties of modules</i>	170
FRANK A. CEZUS	<i>Pseudo-idempotents in semigroups of functions</i>	182
H. L. ABBOTT, A. C. LIU and J. RIDDELL	<i>On sets of integers not containing arithmetic progressions of prescribed length</i>	188
GEORGE SZETO	<i>Finite near-rings with trivial annihilators</i>	194
ANTHONY TO-MING LAU	<i>Amenability and invariant subspaces.</i>	200
J. A. RICKARD	<i>On a relationship between magnetohydrodynamic planetary eigenmodes and second-order inertial eigenmodes.</i>	205
BAI CHING CHANG	<i>A classification of the commutator subgroup of the group of a boundary link.</i>	216
B. F. SHERMAN	<i>Cauchy completion of partially ordered groups.</i>	222
ROBERT I. SOARE	<i>Isomorphisms on countable vector spaces with recursive operations</i>	230
EDWIN HEWITT and KARL STROMBERG	<i>Some examples of nonmeasurable sets</i>	236
WILLIAM H. CORNISH ARIBINDI	<i>Pseudo-complemented modular semilattices.</i>	239
SATYANARAYAN RAO	<i>On the almost periodic solution of an abstract differential equation</i>	252

Published for

THE AUSTRALIAN MATHEMATICAL SOCIETY

by Jerusalem Academic Press — Jerusalem — Israel

THE JOURNAL

Two volumes of four parts are published annually at a price of A\$30 per volume, in 1974. Manuscripts (two copies) for publication should be sent to the editor. Authors are asked to follow the instructions in the American Mathematical Society: *A manual for authors of mathematical papers* except as indicated on the outside cover of this Journal.

Editor of the Journal

J. N. Crossley, Department of Mathematics, Monash University, Clayton 3168, Australia.
Correspondence concerning the printing of papers after their acceptance for publication should be addressed to one of the Assistant Editors:

J. R. J. Groves	Department of Mathematics, University of Melbourne Parkville 3052, Australia
or	
D. K. Ross	Department of Mathematics, La Trobe University, Bundoora 3083, Australia.

THE AUSTRALIAN MATHEMATICAL SOCIETY

<i>President:</i>	H. S. Green	University of Adelaide
<i>Secretary:</i>	W. Pye	Melbourne State College, 757 Swanston Street, Carlton, 3053, Australia.
<i>Treasurer:</i>	V. G. Hart	Department of Mathematics, University of Queensland, St. Lucia, 4067, Australia.
<i>Business Manager:</i>	H. M. Finucan	Department of Mathematics, University of Queensland, St. Lucia, 4067, Australia.
<i>Membership subscriptions:</i>	Institutions:	A\$100
	Other members:	A\$16 (which may be reduced to A\$6 for under- graduates and junior graduates).

Reciprocity agreements: Such agreements have been made with a number of other mathematical societies. Under the agreements members of the other societies who are not normally resident in Australia may join the Australian Mathematical Society at half the current rates.

Membership and correspondence: Applications for membership, notice of change of address or title or position, and other correspondence should be sent to the Secretary. Subscriptions and correspondence related to accounts should be sent to the Treasurer. Correspondence about the distribution of the Society's GAZETTE, JOURNAL and BULLETIN, and orders for back numbers, should be sent to the Business Manager.

Members of the Society receive copies of the GAZETTE free, and may subscribe to either of the Society's research publications* the JOURNAL or the BULLETIN at the price of A\$8 per year.