

# THE JOURNAL *of* THE AUSTRALIAN MATHEMATICAL SOCIETY

VOLUME XVIII - PART 3

NOVEMBER 1974

ANDREW WIRTH	<i>Some Krein-Milman theorems for order-convexity . . .</i>	257
DONALD K. FRIESEN	<i>Normal complements in finite solvable groups . . . . .</i>	262
CHI SONG WONG	<i>Fixed point theorems for generalized nonexpansive mappings . . . . .</i>	265
PAUL H. KARVELLAS	<i>Inversive semirings . . . . .</i>	277
H. E. SCHEIBLICH	<i>Kernels of inverse semigroup homomorphisms . . . . .</i>	289
P. V. RAMANA MURTY	<i>Semi-Brouwerian algebras . . . . .</i>	293
A. LENARD	<i>Uniqueness criterion for a moment problem . . . . .</i>	303
B. J. PEARSON	<i>On the existence of rigid arcs . . . . .</i>	306
J. S. V. SYMONS	<i>Completely rigid graphs . . . . .</i>	310
J. C. BURNS	<i>The iterated equation of generalized axially symmetric potential theory, VI General solutions . . . . .</i>	318
ANGELINA BYRNE and E. R. LOVE	<i>Complex inversion theorems for generalized Stieltjes transforms . . . . .</i>	328
S. C. AGRAWAL and J. C. SAINI	<i>Thermal instability of Couette flow . . . . .</i>	359
KENG-TEH TAN	<i>Some torsion-free group rings with nilpotent prime radicals . . . . .</i>	372
ALAN G. HAMILTON	<i>Recursive equivalence types of vector spaces . . . . .</i>	376

---

*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.

---