# THE JOURNAL of

# THE AUSTRALIAN MATHEMATICAL SOCIETY

# VOL. IV - PART 4

#### **NOVEMBER 1964**

Groups with one defining relator	G. BAUMSLAG	385
Transcendental numbers	K. MAHLER	393
An integral equation from phytology	J. B. MILLER	397
Translates of $L^{\infty}$ functions and of bounded measures	R. E. EDWARDS	403
Solution of a generalized Schroeder equation in two variables	C. F. SCHUBERT	410
An inequality for a pair of polynomials that are relatively prime	K. MAHLER	418
On a type of Riemannian space	BANDANA GUPTA	421
Inequalities for ideal bases in algebraic number fields	K. Mahler	425
Finite groups with a nilpotent maximal subgroup	ZVONIMIR JANKO	449
Another law for the 3-metabelian groups	I. D. MACDONALD	452
On normaliser preserving lattice isomorphisms between nilpotent groups	D. W. BARNES AND G. E. WALL	454
Lattice isomorphisms of Lie algebras	D. W. BARNES	470
Voigt profile functions in the complex domain .	A. REICHEL	476
Single-server queueing systems with uniformly limited queueing time	D. J. Daley	489
On the distribution of the time to first emptiness of a store with stochastic input	A. M. HASOFER	506
The joint distribution of occupation totals for a simple random walk	V. D. BARNETT	518

Published for
THE AUSTRALIAN MATHEMATICAL SOCIETY
by P. Noordhoff N.V. - Groningen - The Netherlands

## EDITORIAL BOARD

T. G. Room (Editor), E. S. Barnes, J. M. Blatt, T. M. Cherry, C. S. Davis, H. S. Green, H. O. Lancaster, H. C. Levey, P. A. P. Moran, J. E. Moyal, E. J. G. Pitman, R. C. T. Smith, W. B. Smith-White, G. E. Wall, K. C. Westfold.

Manuscripts for publication in the *Journal* should be sent to the *Editor*, T. G. Room, University of Sydney, Sydney, Australia.

All other correspondence, orders for the Journal, exchanges, etc., except that directly concerned with the payments of accounts, should be addressed to the *Business Manager*, E. T. STELLER, University of Queensland, Brisbane, Queensland, Australia.

All subscriptions and correspondence connected with accounts should be sent to the *Treasurer*, C. S. Davis, University of Queensland, Brisbane, Queensland, Australia.

Each Volume of the Journal consists of four parts. Volume V will be published in 1965. The price per volume is £ 6.0.0 (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 our Society or have any other financial commitment. They will receive copies of the Journal free.

## OFFICERS OF THE SOCIETY

President	B. H. NEUMANN	(A.N.U., Canberra)
Vice-Presidents	E. S. BARNES	(Adelaide)
	J. R. M. RADOK	(Adelaide)
Treasurer	C. S. DAVIS	(Queensland)
General Secretary	C. F. J. UPTON	(Melbourne)
Publications Secretary	G. E. WALL	(Sydney)
Editor of Journal	T. G. ROOM	(Sydney)
Councillors	J. M. BLATT	(Univ. of N.S.W.)
	J. J. MAHONY	(Western Australia)
	E. J. HANNAN	(A.N.U., Canberra)
	H. C. LEVEY	(Western Australia)
	E. J. WILLIAMS	(Melbourne)
	D. ELLIOTT	(Tasmania)