THE JOURNAL OF

THE AUSTRALIAN MATHEMATICAL SOCIETY

(SERIES A)-VOLUME XXVI-PART 1

AUGUST 1978

J. COATES and A. WILES	On p-adic L-functions and elliptic units	1
P. E. BLANKSBY and J. H. LOXTON	A note on the characterization of CM-fields	26
J. H. LOXTON and A. J. VAN DER POORTEN	Algebraic independence properties of the Fredholm series	31
E. S. BARNES	Minkowski's fundamental inequality for reduced positive quadratic forms	46
R. T. WORLEY	Denominator sequences for continued fractions, III	53
G. P. Monro and D. E. Taylor	On multiply transitive permutation groups	57
COLIN D. FOX	On localizing orderable modules	59
P. S. CHEE	A uniqueness set for all $H^p(B_n)$ with $p>0$	65
PAUL M. WEICHSEL	A commutator identity for basic p-groups	70
JAMES F. HURLEY	Orders in simple Lie algebras of Chevalley type .	76
Kong-Ming Chong	A note on Rado's theorem	86
KATHERINE HEINRICH and W. D. WALLIS	Hamiltonian cycles in certain graphs	89
A. L. Brown	Chebyshev subspaces of finite codimension in spaces of continuous functions	99
P. G. TROTTER	Normal partitions of idempotents of regular semigroups	110
J. R. J. GROVES	Soluble groups in which every finitely generated subgroup is finitely presented	115
KERMIT SIGMON	On when a topologically simple semigroup is simple	126

Printed and Published for THE AUSTRALIAN MATHEMATICAL SOCIETY

by John Wright and Sons Ltd, Bristol, England

THE JOURNAL

The Journal of the Australian Mathematical Society began publication in 1959, and from 1975 has appeared in two series, Series A (Pure Mathematics) and Series B (Applied Mathematics). Information about Series B may be found on the inside back cover.

Series A, Pure Mathematics

Two volumes of four parts each are published annually, at a price of A\$40 per volume in 1978. Authors submitting papers for publication should send two copies of the typescript, each containing an abstract and a subject classification (Amer. Math. Soc. (MOS) 1970), to the Editor or to an appropriate Associate Editor. Authors are asked to follow the instructions in the American Mathematical Society publication A manual for authors of mathematical papers, except as indicated on the back cover of this issue.

Editor of the Journal, Series A

J. B. Miller, Department of Mathematics, Monash University, Clayton, Victoria 3168

Associate Editors

Gavin Brown—harmonic analysis,
Department of Mathematics,
University of New South
Wales, P.O. Box 1,
Kensington, N.S.W. 2033

J. H. Coates—number theory, Department of Mathematics, RSPS, Australian Nattional University, P.O. Box 4, Canberra, A.C.T. 2600

J. N. Crossley—logic Department of Mathematics, Monash University, Clayton, Victoria 3168

T. E. Hall—semigroups, Department of Mathematics, Monash University, Clayton, Victoria 3168

H. Lausch—groups, Department of Mathematics, Monash University, Clayton, Victoria 3168 R. Lidl—algebra,
Department of Mathematics,
University of Tasmania,
Box 252C, G.P.O., Hobart,
Tasmania 7001

G. R. Morris—differential equations,
Department of Mathematics,
University of New England,
Armidale, N.S.W. 2351

A. P. Robertson—functional analysis,
School of Mathematical and Physical Sciences,
Murdoch University,
Murdoch, W.A. 6153

J. H. Rubinstein—topology, Department of Mathematics, University of Melbourne, Parkville, Victoria 3052

R. H. Street—categories, School of Mathematics & Physics, Macquarie University, North Ryde, N.S.W. 2113 E. Strzelecki—analysis, Department of Mathematics, Monash University, Clayton, Victoria 3168

D. E. Taylor—algebra, Department of Pure Mathematics, University of Sydney, Sydney, N.S.W. 2006

R. Tweedie—probability and statistics,
Division of Mathematics and Statistics,
CSIRO, P.O. Box 1965,
Canberra City, A.C.T. 2601

J. Virsik—differential geometry, Department of Mathematics, Monash University, Clayton, Victoria 3168

W. Wallis—combinatorics, Department of Mathematics, University of Newcastle, Newcastle, N.S.W. 2308

Assistant Editors

E. V. Dudley, 28 Burdekin St, Duffy, A.C.T. 2611 P. J. Stacey, Department of Mathematics, La Trobe University, Bundoora, Victoria 3083

Correspondence concerning the printing of papers after their acceptance for publication should be addressed to P. J. Stacey.

THE JOURNAL OF THE AUSTRALIAN MATHEMATICAL SOCIETY

SERIES A

VOLUME XXVI

Printed and published for THE AUSTRALIAN MATHEMATICAL SOCIETY

by John Wright and Sons Ltd., Bristol, England