THE JOURNAL OF THE AUSTRALIAN MATHEMATICAL SOCIETY

SERIES A - VOLUME 28 - PART 1

AUGUST 1979

NICHOLAS WORMALD	A 4-chromatic graph with a special plane drawing			1	
BOLA O. BALOGUN	Conjugate purity and infinite groups	•			9
R. D. Byrd, J. T. Lloyd and J. W. Stepp	The automorphism group of the semi-g complexes of a periodic abelian grou	roup ip	of fini	ite ,	15
Kung-Fu Ng	A maximum principle				23
D. A. HOLTON and J. SHEEHAN	On Sylow graphs			•	27
M. Schroder	Order-bounded convergence structures continuous functions	on s _i	paces	of	39
BRUCE REZNICK	When is the iterate of a formal power.	series	odd?		62
L. CACCETTA	Extremal graphs of diameter 3 .		9	•	67
HARALD HULE	Solutionally complete varieties .	*)		•	82
STEPHEN J. PRIDE	On groups of finite height				87
MARCEL HERZOG and CHERYL E. PRAEGER	On characters in the principal 2-block.	П	•	÷	100
J. L. BALES	On product varieties of inverse semigro	oups			107
MAMORU WATANABE and	Integral starlike trees	•	•		120

Printed and Published for THE AUSTRALIAN MATHEMATICAL SOCIETY

https://doi.org/10.1017/5144678870001404 Published online/by cambridge university Pless stol, 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 \$44 per volume in 1979. Research papers in pure mathematics and in mathematical statistics are invited. Authors intending to submit papers for publication should prepare the typescript following the instructions on the back cover of this issue, and should send two complete copies to the Ecitor or to an appropriate Associate Editor.

Editor of the Journal, Series A

J. B. Miller, Department of Mathematics, Monash University, Claytor, 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. N. Crossley logic Department of Mathematics, Monash University, Clayton, Victoria 3168

T. E. Hall seraigroups, Department of Mathematics, Monash Unive sity, 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

W. Moran - harmonic analysis
Department of Pure Mathematics,
University of Adelaide,
G.P.O. Box 498, Adelaide,
S.A, 5001 G. R. Morris differential equations, Department of Mathematics, University of New England, Armidale, N.S.W. 2351

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

R. H. Street categories, School of Mathematics & Physics, Maccuarie 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. L. Tweedie - probability and statistics, Division of Mathematics and Statistics, CSIRO, P.O. Box 310, South Melbourne, Victoria 3205

E. V. Dudley, 63 Carbeen Street, Rivett, A.C.T. 2611 P. J. Stacey, Department of Mathemalics, La Trobe University, Bundoora, Vi-toria 3083

A. J van der Poorten

Vacquarie University,

J. Virsik differential

Monash University,

analysis partial

Cayton, Victoria 3 68

R. O. Vyberny abstract

differential equations, Department of Mathematics,

University of Queensland,

St. Lucia, Queensland 4067

W. Wallis combinatories, Department of Mathematics,

University of Newcastle,

Newcastle N.S.W. 2308

geometry,

School of Mathematics and

North Ryle, N.S.W. 2113

Department of Mathematics,

number theory.

Physics,

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

Assistant Editors

THE JOURNAL OF THE AUSTRALIAN MATHEMATICAL SOCIETY

SERIES A

VOLUME 28 1979

Printed and published for THE AUSTRALIAN MATHEMATICAL SOCIETY by John Wright and Sons Ltd., Bristol, England