JOURNAL of the

AUSTRALIAN MATHEMATICAL SOCIETY

Series A — Pure Mathematics and Statistics

Volume 35 Part 2 OCTOBER 1983

P. D. T. A. ELLIOTT	On representing integers as products of integers of a prescribed type	143
JONATHAN S. GOLAN and JACQUES RAYNAUD	Derived functors of the torsion functor and lo- cal cohomology of noncommutative rings	162
M. Loganathan	Cohomology and extensions of regular semigroups	178
N. J. Groenewald	A characterization of semi-prime ideals in near- rings	194
A. Gutiérrez	A note on a paper by S. Lal	197
DEREK W. ROBINSON and SADAYUKI YAMAMURO	Addition of an identity to an ordered Banach space	200
R. Balakrishnan and P. Paulraja	Powers of chordal graphs	211
J. R. J. GROVES	A conjecture of Lennox and Wiegold concern- ing supersoluble groups	218
K. C. Das and B. D. Craven	Linearity and weak convergence on the bound- ary of numerical range	221
P. R. Jones	On the lattice of varieties of completely regular semigroups	227
P. S. BULLEN	The Burkill approximately continuous integral .	236
C. W. GROETSCH and J. T. KING	The saturation phenomena for Tikhonov regularization	254
A. C. YORKE	Geometry in quotient reflexive spaces	263
Wang Lianxiang	On p-adic F-functions	269
Акіо Като	Nonexistence of universal paracompact M-spaces	281

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 Statistics) and Series B (Applied Mathematics). Information about Series B may be found on the inside back cover.

Series A. Pure Mathematics and Statistics

Submission of research papers in pure mathematics and mathematical statistics is invited. Authors intending to submit papers for publication should prepare the typescript following the instructions below, and should send two complete copies to the Editor, or to an appropriate Associate Editor (see back cover of this issue).

Two volumes of three parts each are planned for 1983. These are Volume 34 and Volume 35. The annual subscription price to non-members is A\$120.00 for 1983.

SUBMISSION OF TYPESCRIPTS

Two copies of mathematical papers intended for publication in the JOURNAL (Series A) should be addressed to one of the editors. Editors and the subjects associated with them follow.

PREPARATION OF TYPESCRIPTS

- 1. The author should keep a complete copy of the submitted article; the Society will not accept responsibility for any loss. Two copies of the typescript should be submitted.
- 2. Each typescript should include: (i) an abstract of not more than 150 words, preferably containing no formulae, and certainly containing no complicated formulae and no references, (ii) a 1980 Mathematics subject classification (Amer. Math. Soc.); the classification scheme is described in Mathematical Reviews, Index to Volume 56 (1978), (iii) if the title is long, a shortened form of it, no more than forty characters in length, including spaces.
- 3. The article should be typed or photocopied on high quality A4 or quarto bond paper, on one side only, with at least double spacing, and with a generous margin (at least 3 cm) all around.
- 4. The conventions of A manual for authors of mathematical papers published by the American Mathematical Society should be observed. Two alternative styles for references and quotations are described below. Authors are requested to use one and only one style consistently throughout their typescript.
- STYLE 1. A typical reference in the list of references would be:
- T. M. Cherry (1965), 'Infinite linear systems with homogeneous kernel of degree -1', J. Austral. Math. Soc. 5, 129-168.

A corresponding reference in the text would be: Cherry (1965), p. 155.

STYLE 2. A typical reference in the list of references would be:

[3] L. Grüschen, 'Pseudo-quasi-ergodic theorems', J. Austral. Math. Soc. 4 (1960), 2-3.

A corresponding reference in the text would be: Grüschen [3], or ([3], [4], [9]), or Grüschen ([2, 3]).

In either style, the list of references should be in alphabetical order of surnames of first authors.

5. Explain clearly what symbols are to be set in special typefaces (such as cursive, fraktur, script, bold) and what is required with any unusual symbols (which should wherever possible be chosen from symbols available to the printer). This is best done by supplying a separate page entitled "Notes to the Compositor" in which conventions and requirements are fully set out, and by drawing attention to particular symbols at their first appearance in the typescript. The Notes to the Compositor should include a list of all symbols and foreign letters used in the article. Be careful to distinguish between similar symbols, such as $v, v, \vee, k, \kappa, K, l, l, l, e, \phi$ (phi), \varnothing (empty set), ε (epsilon), \in (membership), and so on. Normally 0 will be set as zero; if o or O is required, then show this. Distinguish between inequalities <, > and angular brackets \langle , \rangle .

Copyright Statement

Where necessary, permission to photocopy for internal or personal use or the internal or personal use of specific clients is granted by the Treasurer, Australian Mathematical Publishing Association, Inc., to libraries and other users registered with the Copyright Clearance Center (CCC), provided that the base fee of \$A2.00 per copy of article is paid directly to CCC, 21 Congress Street, Salem, MA 01970, U.S.A. Special requests should be addressed to the Treasurer, Australian Mathematical Publishing Association, Inc., c/- Department of Mathematics, University of Queensland, St. Lucia, Qld. 4067, Australia, Serial-fee code: 0263-6115/83 \$A2.00 + 0.00.