

## INFORMATION FOR AUTHORS

The *Bulletin of the Australian Mathematical Society* aims at quick publication of original research in all branches of mathematics. To ensure speedy publication, only articles which are sufficiently well presented, able to be published without revision, and which are judged by the Editor (often in consultation with an Associate Editor) to be competitive are refereed. This policy is in the interests of authors, as a quick rejection is better than a slow rejection. The *Bulletin* receives more than five times the material that can be published, therefore there are many commendable papers not accepted. Editorial decisions on acceptance or otherwise are taken quickly, normally within a month of receipt of the paper. Papers are accepted only after peer review.

Manuscripts are accepted for review with the understanding that the same work is not concurrently submitted elsewhere. For a paper to be acceptable for publication, not only should it contain new and interesting results, but also

- (i) the exposition should be clear and attractive, and
- (ii) the manuscript should be in publishable form, without revision.

Further information regarding these requirements may be found through our website [www.austms.org.au/Bulletin](http://www.austms.org.au/Bulletin). Authors are asked to avoid, as far as possible, the use of mathematical symbols in the title.

Articles should be prepared in  $\LaTeX$  using  $\mathcal{AMS}$ - $\LaTeX$  packages and submitted as a PDF file via our journal management system, at [www.austms.org.au/Publications/Submissions/BAustMS](http://www.austms.org.au/Publications/Submissions/BAustMS). This permits authors to track their papers through the editorial process. Recent versions of  $\TeX$  are able to produce PDF files directly. A  $\LaTeX$  class file for the *Bulletin* can be downloaded from the website. Authors who need assistance may email the secretary of the *Bulletin* at [editor@bulletin.austms.org.au](mailto:editor@bulletin.austms.org.au).

Authors are advised to keep copies of all files of the submitted article; the *Bulletin* will not accept responsibility for any loss.

## EDITORIAL POLICY

**1. References.** Arrange references alphabetically (by surname of the first author) and cite them numerically in the text. Ensure the accuracy of the references: authors' names should appear as in the work quoted. Include in the list of references only those works cited, and avoid citing works which are in preparation or submitted. Where the work cited is not readily accessible (for example, a preprint) a copy of the article should be included with your submission.

### 2. Abstracts.

1. Each paper must include an abstract of not more than 150 words, which should contain a brief but informative summary of the contents of the paper, but no inessential details.
2. The abstract should be self-contained, but may refer to the title.
3. Specific references (by number) to a section, proposition, equation or bibliographical item should be avoided.

**3. Subject Classification and Key Words.** Authors should include a few key words and phrases and one or more classification numbers, following the American Mathematical Society 2010 Mathematics Subject Classification for all codes. Details of this scheme can be found on the web at [www.ams.org/msc](http://www.ams.org/msc).

**4. Abstracts of PhD Theses.** The *Bulletin* endeavours to publish abstracts of all accepted Australasian PhD theses in mathematics. One restriction, however, is that the abstract must be received by the Editor within six months of the degree being approved.



MIX  
Paper from  
responsible sources  
FSC® C007785

This journal issue has been printed on FSC-certified paper and cover board. FSC is an independent, non-governmental, not-for-profit organisation established to promote the responsible management of the world's forests. Please see [www.fsc.org](http://www.fsc.org) for information.

## Table of Contents

<b>Alternating colourings of the vertices of a regular polygon</b> <i>Singh, S. &amp; Zelenyuk, Y.</i>	177
<b>A bound for the chromatic number of <math>(P_5, \text{gem})</math>-free graphs</b> <i>Cameron, K., Huang, S. &amp; Merkel, O.</i>	182
<b>A note on the sum of reciprocals</b> <i>Ding, Y. &amp; Sun, Y.-C.</i>	189
<b>Note on sums involving the Euler function</b> <i>Chern, S.</i>	194
<b>Periods of Ducci sequences and odd solutions to a Pellian equation</b> <i>Breuer, F.</i>	201
<b>On the factorisation of <math>x^2 + D</math></b> <i>Ghadermarzi, A.</i>	206
<b>Vanishing coefficients in four quotients of infinite product expansions</b> <i>Tang, D.</i>	216
<b>A lower bound for the large sieve with square moduli</b> <i>Baier, S., Lynch, S. B. &amp; Zhao, L.</i>	225
<b>On the distribution of the rank statistic for strongly concave compositions</b> <i>Zhou, N. H.</i>	230
<b>A brief note on some infinite families of monogenic polynomials</b> <i>Jones, L.</i>	239
<b>On the Selmer group of a certain <math>p</math>-adic Lie extension</b> <i>Bhave, A. &amp; Bora, L.</i>	245
<b>On the dimension of permutation vector spaces</b> <i>Reis, L.</i>	256
<b>A new sum-product estimate in prime fields</b> <i>Chen, C., Kerr, B. &amp; Mohammadi, A.</i>	268
<b>A nilpotency criterion for some verbal subgroups</b> <i>Monetta, C. &amp; Tortora, A.</i>	281
<b>A note on the periodicity of entire functions</b> <i>Liu, K. &amp; Yu, P.</i>	290
<b>Extendable temperatures</b> <i>Watson, N. A.</i>	297
<b>A system of functional equations satisfied by components of a quadratic function and its stability</b> <i>Ponpetch, K., Laohakosol, V. &amp; Mavecha, S.</i>	304
<b>A generalisation of the Frobenius reciprocity theorem</b> <i>Dharmadasa, H. K. &amp; Moran, W.</i>	317
<b>A note on radial symmetry for an integral equation of Wolff type</b> <i>Wang, Y. &amp; Tian, L.</i>	323
<b>Approximations of subhomogeneous algebras</b> <i>Shulman, T. &amp; Uuye, O.</i>	328
<b>A quantitative extension of Szlenk's theorem</b> <i>Kryczka, A.</i>	338
<b>Recovery of the temperature distribution in a multilayer fractional diffusion equation</b> <i>Tran, K. T., Tran, L. N., Nguyen, H. B. Q. &amp; Tra, K. Q.</i>	344