PREPARATION OF MANUSCRIPTS

The ANZIAM Journal is typeset in LaTeX. Style files are available from `http://www.austms.org.au/Publ/ANZIAM/authorinfo.shtml`.

The manuscript should conform to the following rules. In case of any doubt, authors are advised to refer to previous papers in the Journal.

1. Abstract, title and author details. An abstract not exceeding 300 words should be included in the manuscript. If the title is long, supply also a shortened form of the title not exceeding 40 characters, including spaces. Addresses should be shown under the authors name, including e-mail address if available.

2. Main headings. Main headings should be numbered, centred and shown thus:

2. Preliminary results

3. Theorems. The titles LEMMA, THEOREM, COROLLARY, REMARK, DEFINITION *etc*. should be left-justified and numbered consecutively with arabic numerals, *e.g.*
LEMMA 1.1. The content of the lemma, theorem *etc*. should follow, as here.

4. Acknowledgements. If acknowledgements of support and assistance are made, these should be given at the end of the article. Footnotes should be avoided.

5. Equations. Equations should be punctuated to conform to their place in the syntax of the sentence. Equation numbers should be shown on the right in round brackets.

6. References. The reference list should be in ALPHABETICAL ORDER by name of first author, preceded by a reference number in square brackets. These references should be cited in the text by giving the appropriate number in square brackets. The following layout for books, journal articles, theses, articles in books, and conference proceedings respectively, must be followed.

[1] M. Abramowitz and I. A. Stegun (eds), *Handbook of mathematical functions* (Dover, New York, 1970).

[2] S. N. Biswas and T. S. Santhanam, "Coherent states of para-Bose oscillators", *J. Austral. Math. Soc. Ser. B* **22** (1980) 210–217.

[3] F. H. Busse, "On the mean field problem of thermal convection", *Max-Plank Inst. Phys. Astrophys. Rep. MPI-PAE/Astro* **31** (1970) 1–31.

[4] E. M. Casling, "Slender planing surfaces", Ph. D. Thesis, University of Adelaide, 1978.

[5] R. H. Day, "Adaptive process and economic theory", in *Adaptive economic models* (eds R. H. Day and T. Groves), (Academic Press, New York, 1975) 1–38.

[6] J. W. Miles, "Resonant response of harbors (the harbor paradox revisited)", *Proc. 8th Symp. Naval Hydro.* (1970) 95–115.

7. Tables. Each should be preceded by a caption beginning: TABLE 1 (or 2, 3, *etc*.)

8. Figures. Each figure should have a caption beginning: FIGURE 1 (or 2, 3, *etc*.).

Authors should provide diagrams drawn to professional standards in the form of encapsulated Postscript files. Other forms of diagrams drawn to professional standard may be acceptable, however this may also necessitate a payment from the author(s) to cover additional cost involved in processing them.

https://doi.org/10.1017/S1446181121000444 Published online by Cambridge University Press

SUBMISSION OF MANUSCRIPTS

Prior to submission authors are asked to read the section "Preparation of Manuscripts" on the previous page.

Authors of articles submitted for publication in The ANZIAM Journal are asked to ensure that their manuscripts are in a form suitable for sending to the printer. Editors reserve the right to return poorly presented material to authors for revision.

The author should submit a pdf file if possible to the Online Journal System. Follow the instructions at `http://anziamj.austms.org.au/ojs/index.php/ANZIAMJ/user/register`.

It will speed up processing of accepted papers if a LaTeX version of the manuscript is available. It is not necessary to send such a file with the submitted paper. This will be requested if the paper is accepted.

Authors of accepted papers will be provided with a complimentary electronic version of their paper as published.

Excessive costs incurred by the Australian Mathematical Society through corrections to or withdrawal of articles may be charged to the authors concerned.

Submission of a paper to The ANZIAM Journal is a representation by the author that the manuscript has not been copyrighted or published, and that it is not being considered for publication elsewhere.

THE ANZIAM JOURNAL AND THE ELECTRONIC SUPPLEMENT

The Journal of the Australian Mathematical Society began publication in 1959, and from 1975 appeared in two series, Series A (Pure Mathematics and Statistics) and Series B (Applied Mathematics). Series B is now The ANZIAM Journal and is published in volumes comprising four quarterly parts. There is also a fifth (electronic) part designed for rapid publication (`http://anziamj.austms.org.au/ojs/index.php/ANZIAMJ`). The Editor-in-Chief is A. J. Roberts, School of Mathematical Sciences, The University of Adelaide, ADELAIDE, SA 5005; `anthony.roberts@adelaide.edu.au`. All five parts are refereed. All accepted papers have the option of publication in the electronic part.

It is the editorial policy of The ANZIAM Journal to consider papers in any field of applied mathematics and related mathematical sciences. Novel applications of mathematics in real situations are especially welcome. All papers must include some indication of applicability, and an introduction that can be understood by non-specialist readers from the whole applied mathematical community.

https://doi.org/10.1017/S1446181121000444 Published online by Cambridge University Press



The new home of
Cambridge Journals

cambridge.org/core

Cambridge Core

CAMBRIDGE
UNIVERSITY PRESS

https://doi.org/10.1017/S1446181121000444 Published online by Cambridge University Press

THE AUSTRALIAN MATHEMATICAL SOCIETY

President:	O. WARNAAR	School of Mathematics and Physics The University of Queensland Brisbane, QLD 4072, Australia
Secretary:	D. C. JACKSON	Department of Mathematics and Statistics La Trobe University Bundoora, VIC 3086, Australia
Treasurer:	L. FERRARIO	Mathematical Sciences Institute Australian National University Canberra, ACT 2601, Australia

Membership and correspondence: Applications for membership, notices of changes of address or title or position, members' subscriptions and correspondence related to accounts should be sent to the Treasurer. All other correspondence should be sent to the Secretary.

Subscriptions: Four parts are planned for 2022. Subscription prices for 2022 are £432 ($792 in USA, Canada and Mexico) which includes print and electronic access. The electronic-only access price for 2022 is £334/€373 ($608 in USA, Canada and Mexico). Single parts cost £124 ($228 in USA, Canada and Mexico). Prices include delivery by air where appropriate. EU subscribers who are not registered for VAT should add VAT at their country's rate. VAT registered subscribers should provide their VAT registration number. Orders, which must be accompanied by payment, should be sent to a subscription agent, book-seller, or direct to the publishers: Cambridge University Press, University Printing House, Shaftesbury Road, Cambridge CB2 8BS or, in the USA, Canada and Mexico, Cambridge University Press, Journals Fulfilment Department, 1 Liberty Plaza, Floor 20, New York, NY 10006, USA. Japanese prices are available from Kinokuniya Company Ltd, PO Box 55, Chitose Tokyo 156, Japan. Periodicals postage is paid at New York, NY and additional mailing offices. POSTMASTER: send address changes in USA, Canada and Mexico to *The ANZIAM JOURNAL*, Cambridge University Press, Journals Fulfilment Department, 1 Liberty Plaza, Floor 20, New York, NY 10006, USA.

This journal is included in the Cambridge Journals Online service. Further information, and online access for subscribers, is available at http://journals.cambridge.org/anz.

Copying: This journal is registered with the Copyright Clearance Centre, 222 Rosewood Drive, Danvers, MA 01923, USA. Organizations in the USA who are registered with the CCC may therefore copy materials beyond the limits permitted by sections 107 and 108 of US copyright law subject to payment to CCC of the per-copy fee of $16.00. This consent does not extend to multiple copying for promotional and commercial purposes. Code 1446-1811/2022 $16.00.

Organizations authorized by the Copyright Licensing Agency may also copy material subject to the usual conditions. For all other use, permission should be sought from Cambridge or the American branch of Cambridge University Press.

Published by Cambridge University Press for the Australian Mathematical Publishing Association Incorporated. Printed and bound by CPI Group (UK) Ltd, Croydon, CR0 4YY.

© 2023 Australian Mathematical Publishing Association Inc.

MIX
Paper | Supporting responsible forestry
FSC™ C013604
FSC
www.fsc.org

This journal issue has been printed on FSC™ -certified paper and cover board. FSC is an independent, nongovernmental, not-for-profit organization established to promote the responsible management of the world's forests. Please see www.fsc.org for information.

https://doi.org/10.1017/S1446181121000444 Published online by Cambridge University Press

Table of Contents

A local projection stabilization for convection–diffusion–reaction equations using biorthogonal systems
Lamichhane, B. P. & Shaw-Carmody, J. A. **205**

A comparison of explicit Runge–Kutta methods
Walters, S. J., Turner, R. J. & Forbes, L. K. **227**

Volatility swaps valuation under a modified risk-neutralized Heston model with a stochastic long-run variance level
He, X.-J. & Lin, S. **250**

High order explicit second derivative methods with strong stability properties based on Taylor series conditions
Moradi, A., Abdi, A. & Hojjati, G. **264**

A modification to the Schrödinger equation for broader bandwidth gravity-capillary waves on deep water with depth-uniform current
Halder, S. & Dhar, A. K. **292**

Cambridge Core
For further information about this journal please go to the journal website at:
cambridge.org/anz

Aust MS
Australian Mathematical Society Inc.

CAMBRIDGE UNIVERSITY PRESS

https://doi.org/10.1017/S1446181121000444 Published online by Cambridge University Press