THE ANZIAM JOURNAL

(The Australian & New Zealand Industrial and Applied Mathematics Journal)

https://doi.org/10.1017/S1446181100012633 Published online by Cambridge University Press

Editorial Office and Address

Editor-in-Chief C. E. M. PEARCE, charles.pearce@adelaide.edu.au
Executive Editor E. HUNT, emma.hunt@adelaide.edu.au
Technical Editor J. M. WHYTE, jason.whyte@adelaide.edu.au

School of Mathematical Sciences, The University of Adelaide, SA 5005, Australia.

Associate Editors

A. P. BASSOM
School of Mathematics and Statistics (M019)
The University of Western Australia
Crawley WA 6009
bassom@maths.uwa.edu.au

A. J. BRACKEN
Department of Mathematics
The University of Queensland
St. Lucia QLD 4072
ajb@maths.uq.edu.au

B. D. CRAVEN
Department of Mathematics
The University of Melbourne
VIC 3010
craven@ms.unimelb.edu.au

A. C. EBERHARD
Department of Mathematics
Royal Melbourne Institute of Technology
GPO Box 2476V
Melbourne VIC 3001
andrew.eberhard@ems.rmit.edu.au

L. K. FORBES
School of Mathematics & Physics
The University of Tasmania
Hobart TAS 7001
Larry.Forbes@utas.edu.au

J. M. HILL
Department of Mathematics
The University of Wollongong
PO Box 1144
Wollongong NSW 2500
j.hill@uow.edu.au

G. C. HOCKING
Department of Mathematics and Statistics
Murdoch University
Murdoch WA 6150
hocking@prodigal.murdoch.edu.au

C. A. HURST
Department of Physics and Mathematical Physics
The University of Adelaide
SA 5005
ahurst@physics.adelaide.edu.au

V. JEYAKUMAR
School of Mathematics
University of New South Wales
Sydney NSW 2052
jeya@maths.unsw.edu.au

P. E. KLOEDEN
Fachbereich Mathematik
Johann Wolfgang Goethe Universität
D-60054 Frankfurt am Main
Germany
kloeden@math.uni-frankfurt.de

M. KRISHNAMOORTHY
CSIRO Mathematical and Information Sciences
Private Bag 10
Clayton South MDC
VIC 3169
Mohan.Krishnamoorthy@csiro.au

R. MCKIBBIN
Institute of Information and Mathematical Sciences
Massey University
Albany, Auckland
Private Bag 102 904
North Shore Mail Centre
New Zealand
R.McKibbin@massey.ac.nz

P. K. POLLETT
Department of Mathematics
The University of Queensland
St Lucia QLD 4072
pkp@maths.uq.edu.au

D. RALPH
The Judge Institute of Management Studies
Cambridge University
Trumpington St
Cambridge CB2 1AG
England
dr241@cam.ac.uk

H. M. SRIVASTAVA
Department of Mathematics and Statistics
University of Victoria
Victoria B.C. V8W 3P4
Canada
hmsri@uvvm.uvic.ca

K. L. TEO
Department of Mathematics and Statistics
Curtin University of Technology
GPO Box U 1987, Perth
WA 6845
K.L.Teo@curtin.edu.au

A. TORDESILLAS
Department of Mathematics
The University of Melbourne
VIC 3010
A.Tordesillas@ms.unimelb.edu.au

J.-M. VANDEN-BROECK
School of Mathematics
The University of East Anglia
Norwich NR4 7TJ, England
J.Vanden-Broeck@uea.ac.uk

G. C. WAKE
Institute of Information and Mathematical Sciences
Massey University
Albany, Auckland
Private Bag 102 904
North Shore Mail Centre
New Zealand
g.c.wake@massey.ac.nz

G. J. WEIR
Applied Mathematics Centre
Industrial Research Ltd
PO Box 31310
Lower Hutt, New Zealand
g.weir@irl.cri.nz

Cover design by HILARY BOOTH.

https://doi.org/10.1017/S1446181100012633 Published online by Cambridge University Press

ISSN 1446-1811

THE ANZIAM JOURNAL

Volume 49 Part 1
JULY 2007

Mesh independence and fast local convergence of a primal-dual active-set method for mixed control-state constrained elliptic control problems
M. Hintermüller 1

Evolution equations having conservation laws with flux characteristics
B. van Brunt and M. Vlieg-Hulstman 39

Initial value formalism for Lemaitre-Tolman-Bondi collapse
P. D. Lasky, A. W. C. Lun and R. B. Burston 53

A note on the stability and the approximation of solutions for a Dirichlet problem with $p(x)$-Laplacian
Marek Galewski 75

Biorthogonal interpolatory multiscaling functions and corresponding multiwavelets
Yang Shouzhi 85

Calculating the near field of a line of sources using Mellin transforms
P. A. Martin 99

Delay-dependent stability and stabilization of uncertain discrete-time Markovian jump singular systems with time delay
Shuping Ma, Xinzhi Liu and Chenghui Zhang 111

A comparative study of the direct boundary element method and the dual reciprocity boundary element method in solving the Helmholtz equation
Song-Ping Zhu and Yinglong Zhang 131

Set by the Australian Mathematical Publishing Association Inc.
Printed by Instant Colour Press, Canberra, Australia.

https://doi.org/10.1017/S1446181100012633 Published online by Cambridge University Press

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://jamsb.austms.org.au/). Editor: A. J. ROBERTS, Department of Mathematics & Computing, University of Southern Queensland, Toowoomba, QLD 4350; aroberts@usq.edu.au. All five parts are refereed. All accepted papers have the option of publication in the electronic part. Information about Series A and other publications of the Society may be found on the inside back cover.

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 welcomed. All papers should include some indication of applicability, and an introduction that can be understood by non-specialist readers from the whole applied mathematical community.

Manuscripts (four copies) for publication should be sent to the editor or to an appropriate associate editor at the address given on the inside front cover. Such action 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. Please do not make initial submissions electronically.

Authors are asked to read the section "Preparation of Manuscripts" on the last page.

Irrespective of the number of authors, 20 free offprints of each copy are provided; additional offprints may be ordered at the expense of the authors.

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

The ANZIAM Journal (ISSN 1446-1811) is published quarterly for A$365.20 (Members A$60.50) per annum by the Australian Mathematical Society, Mathematics Department, Australian National University, ACT 0200, Australia. Send address change notices to Dr A. Howe, Journal of the Australian Mathematical Society, Mathematics Department, Australian National University, ACT 0200, Australia.

https://doi.org/10.1017/S1446181100012633 Published online by Cambridge University Press