

# JOURNAL of the AUSTRALIAN MATHEMATICAL SOCIETY

Series B — Applied Mathematics

Volume 27 Part 4

APRIL 1986

<b>The foliage density equation revisited</b>	
John Boris Miller . . . . .	387
<b>Existence and regularity results for Maxwell's equations in the quasi-static limit</b>	
A. L. Carey and D. M. O'Brien . . . . .	402
<b>Criticality dependence on data and parameters for a problem in combustion theory</b>	
K. K. Tam . . . . .	416
<b>Ship bows with continuous and splashless flow attachment</b>	
M. A. D. Madurasinghe and E. O. Tuck . . . . .	442
<b>Boundary value control problems involving the Bessel differential operator</b>	
K.-D. Werner . . . . .	453
<b>On the dynamic analysis of a Leontief model with fixed capital</b>	
J. E. Woods . . . . .	473
<b>Ordinary and partial difference equations</b>	
Renfrey B. Potts . . . . .	488
<b>Oscillations of higher-order neutral equations</b>	
G. Ladas and Y. G. Sficas . . . . .	502
<b>Index for Volume 27</b>	512

The Journal of the Australian Mathematical Society began publication in 1959, and from 1975 appears in two series, Series A (Pure Mathematics and Statistics) and Series B (Applied Mathematics). Series B is published in volumes comprising four quarterly parts. Information about Series A and other publications of the Society may be found on the inside back cover.

It is the editorial policy of Series B to accept papers in any field of applied mathematics and related mathematical sciences. Novel applications of mathematics in real situations are especially welcomed. Authors are encouraged to write an introduction that is accessible to non-specialist audiences from the whole applied mathematical community.

#### Editor of the Journal, Series B

E. O. TUCK, Applied Mathematics Department, University of Adelaide, G.P.O. Box 498, S.A. 5001, Australia.

#### Associate Editors

R. H. J. GRIMSHAW  
Department of Mathematics  
University of Melbourne  
Parkville Vic. 3052

J. M. HILL  
Department of Mathematics  
University of Wollongong  
P.O. Box 1144  
Wollongong N.S.W. 2500

C. A. HURST  
Department of Mathematical  
Physics  
University of Adelaide  
G.P.O. Box 498  
Adelaide S.A. 5001

A. McNABB  
Applied Mathematics Division  
D.S.I.R.  
P.O. Box 1335  
Wellington, New Zealand

J. B. MOORE  
Department of Systems  
Engineering  
Institute of Advanced Studies  
A.N.U., P.O. Box 4  
Canberra, A.C.T. 2600

B. A. MURIAGH  
School of Mechanical and Industrial  
Engineering  
University of N.S.W.  
Kensington N.S.W. 2033

M. R. OSBORNE  
Department of Statistics  
Institute of Advanced Studies  
A.N.U., P.O. Box 4  
Canberra A.C.T. 2600

J. RICKARD  
Graduate School of Management  
University of Melbourne  
Parkville Vic. 3052

I. H. SLOAN  
School of Mathematics  
University of N.S.W.  
Kensington N.S.W. 2033

C. J. THOMPSON  
Department of Mathematics  
University of Melbourne  
Parkville Vic. 3052

#### Assistant Editors

C. E. M. PEARCE, P. M. GILL, Applied Mathematics Department, University of Adelaide, G.P.O. Box 498, S.A. 5001, Australia.

Manuscripts (three copies) for publication should be sent to the editor or to an appropriate associate editor at the address given above. 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. Authors are asked to read the section "Preparation of Manuscripts" on the outside cover.

Irrespective of the number of authors, 100 free offprints of each paper 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.

---

*Journal of the Australian Mathematical Society, Series B - Applied Mathematics* (ISSN 0334-2700) is published quarterly for A\$96 (Members A\$16) per annum by the Australian Mathematical Society, Department of Mathematics, University of Queensland, St. Lucia, Qld. 4067, Australia. Second class postage is paid at Ann Arbor, Michigan 48106. Postmaster: Send address change notices to Dr B. D. Jones, Journal of the Australian Mathematical Society, Department of Mathematics, University of Queensland, St. Lucia, Qld. 4067, Australia.