JOURNAL of the

AUSTRALIAN MATHEMATICAL SOCIETY

Series B — Applied Mathematics

Volume 32 Part 1 JULY 1990

On a periodically forced, weakly damped pendulum. Part 1: Applied torque	
Peter J. Bryant and John W. Miles	1
On a periodically forced, weakly damped pendulum. Part 2: Horizontal	
forcing	
Peter J. Bryant and John W. Miles	23
On a periodically forced, weakly damped pendulum. Part 3: Vertical forcing	
Peter J. Bryant and John W. Miles	42
Reflection of nonlinear deep-water waves incident onto a wedge of arbitrary	
angle	
T. R. Marchant and A. J. Roberts	61
A note on the relationships between convexity and invexity	
Giorgio Giorgi	97
A minimum trapping time problem in optimal control theory	
M. E. Fisher, J. L. Noakes and K. L. Teo	100
Solution of a Schrödinger equation by iterative refinement	
Pakha P. Kulkarni and Ralmohan V. Limava	114

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. 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.

Editor of the Journal, Series B

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

Associate Editors

B. D. CRAVEN
Department of Mathematics
University of Melbourne
Parkville Vic 3052

R. H. J. GRIMSHAW School of Mathematics University of N.S.W. Kensington N.S.W. 2033

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

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

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

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

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

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

W. W. WOOD Department of Mathematics University of Melbourne Parkville Vic. 3052

Assistant Editors

E. A. COUSINS, J. VAN DER HOEK, Applied Mathematics Department, University of Adelaide, G.P.O. Box 498, Adelaide, 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\$117 (Members A\$18) 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.

JOURNAL of the

AUSTRALIAN MATHEMATICAL SOCIETY

Series B — Applied Mathematics

Volume 32

1990/1991