

JOURNAL

of the

AUSTRALIAN MATHEMATICAL SOCIETY

Series B — Applied Mathematics

Volume 22 Part 2

OCTOBER 1980

OLA BRATTELI and DEREK W. ROBINSON	<i>Equilibrium states of a Bose gas with repulsive interactions</i>	129
K. GOPALSAMY and B. D. AGGARWALA	<i>Limit cycles in two species competition with time delays</i>	148
N. RIAHI	<i>On a nonlinear hydromagnetic convection under a rotational constraint</i>	161
R. G. KEATS and JOAN COOPER	<i>The optimum processing of clipped signals: An approach based on minimum signal distortion</i>	175
J. W. NIEUWENHUIS	<i>About a local approximation theorem and an inverse function theorem.</i>	185
K. K. TAM	<i>On the influence of the initial data in a combustion problem.</i>	193
S. N. BISWAS and T. S. SANTHANAM	<i>Coherent states of para-Bose oscillators</i>	210
D. L. CLEMENTS	<i>A boundary integral equation method for the numerical solution of a second order elliptic equation with variable coefficients.</i>	218
T. R. JEFFERSON and C. H. SCOTT	<i>Geometric programming with probabilistic decision variables</i>	229
D. D. DO and R. H. WEILAND	<i>Poisoning-induced exchange of steady states in a catalytic chemical reactor</i>	237
Corrigendum V. N. SINGH	<i>Solution of a general homogeneous linear difference equation</i>	254

THE JOURNAL

The Journal of the Australian Mathematical Society began publication in 1959, and from 1975 appears in two series, Series A (Pure Mathematics) and Series B (Applied Mathematics). Information about Series A may be found on the inside back cover.

SERIES B APPLIED MATHEMATICS

This series will be published in volumes, comprising four parts, starting with volume XIX Part I in 1975. From 1980, four parts will be published annually. Subscriptions may be arranged through the Business Manager (see inside back cover). The annual cost for 1980 is A\$50.

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 welcomed. Authors are encouraged to write an introduction accessible to the whole applied mathematical community. Every effort will be made to publish suitable material with a minimum of delay.

Editor of the Journal

I. H. SLOAN, School of Mathematics, The University of New South Wales, P.O. Box 1, Kensington, N.S.W., Australia, 2033.

Associate Editors

B. D. O. ANDERSON,
Department of Electrical
Engineering,
University of Newcastle,
Newcastle, N.S.W. 2308.

V. T. BUCHWALD,
School of Mathematics,
University of N.S.W.,
P.O. Box 1, Kensington,
N.S.W. 2033

V. G. HART,
Department of Mathematics,
University of Queensland,
St Lucia, Qld 4067.

C. A. HURST,
Department of Mathematical
Physics,
University of Adelaide,
Adelaide, S.A. 5000.

J. IMBERGER,
Department of Civil
Engineering,
University of W.A.,
Nedlands, W.A. 6009.

M. R. OSBORNE,
Department of Statistics, IAS,
Australian National
University, P.O. Box 4,
Canberra, A.C.T. 2600.

S. ROSENBLAT,
Department of Mathematics,
University of Melbourne,
Parkville, Vic. 3052.

W. E. SMITH,
School of Mathematics,
University of N.S.W.,
P.O. Box 1, Kensington,
N.S.W. 2033.

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

Assistant Editors

N. G. BARTON, D. E. MACKENZIE, School of Mathematics, The University of New South Wales, P.O. Box 1, Kensington, N.S.W., Australia, 2033.

Manuscripts (two 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.

Authors receive 20 free offprints of their papers; additional offprints may be ordered at cost. Excessive costs incurred by the Society through corrections to or withdrawal of articles may be charged to the authors concerned.