

The following contributions have been accepted for publication and will appear in 1978/79:

PETER BADER

Variational method for the Hartree equation of the helium atom

PAUL BINDING and PATRICK J. BROWNE

Positivity results for determinantal operators

C. M. CAMPBELL and E. F. ROBERTSON

Deficiency zero groups involving Fibonacci and Lucas numbers

JOSEPH G. CONLON

Fundamental solutions for the anisotropic neutron transport equation

E. M. DE JAGER and T. KÜPPER

The Schrödinger equation as a singular perturbation problem

R. W. DICKEY

The initial value problem for a semi-infinite string

W. D. EVANS and A. ZETTL

Norm inequalities involving derivatives

P. HABETS

On relaxation oscillations in a forced van der Pol oscillator

B. A. HARGRAVE

High frequency solutions of the delta wing equations

J. M. HOWIE

Idempotent generators in finite full transformation semigroups

RAINER KRESS

The treatment of a Neumann boundary value problem for force-free fields by an integral equation method

J. D. P. MELDRUM

On the structure of morphism near-rings

MANABU NAITO and NORIO YOSHIDA

Oscillation theorems for semilinear elliptic differential operators

E. STROESCU

Perturbation of non-linear partial differential variational inequalities II

JÜRGEN VOIGT

On properties related to A-compactness, an example

JOHANN WALTER

On the definition of the absolute temperature—a reconciliation of the classical method with that of Carathéodory

PROCEEDINGS OF THE ROYAL SOCIETY OF EDINBURGH

(Section A)

Volume 80

1978

Parts 1/2

CONTENTS

IAN KNOWLES On the number of L^2 -solutions of second-order linear differential equations	1
IAN KNOWLES On the location of eigenvalues of second-order linear differential operators	15
G. F. ROACH and B. D. SLEEMAN Coupled operator systems and multiparameter spectral theory	23
W. N. EVERITT An integral inequality with an application to ordinary differential operators	35
J. M. TAYLOR The condition of gram matrices and related problems	45
F. V. ATKINSON and W. N. EVERITT Bounds for the point spectrum for a Sturm-Liouville equation	57
U.-W. SCHMINCKE On Schrödinger's factorization method for Sturm-Liouville operators	67
J. C. GUILLOT and C. H. WILCOX Spectral analysis of the Epstein operator	85
A. S. LODGE, J. B. MCLEOD and J. A. NOHEL A nonlinear singularly perturbed Volterra integrodifferential equation occurring in polymer rheology	99
K. J. BROWN and S. S. LIN Monotone techniques and semilinear elliptic boundary value problems	139
W. D. EVANS and A. ZETTL Dirichlet and separation results for Schrödinger-type operators	151
MANFRED KÖNIG Über das Verhalten der Lösung des Dirichletproblems am Rand des Gebietes, wenn der Rand zur Klasse $C^{2,\alpha}$ gehört	163

ISSN 0308-2105

Proc. Roy. Soc. Edinb., A. 80

*Published by The Royal Society of Edinburgh
22 George Street, Edinburgh EH2 2PQ*

*Printed in Scotland
by T. and A. Constable Ltd., Edinburgh EH7 4NF*