

PEAMDU 104(1-177) 1986

Volume 104. Parts 1/2

# THE ROYAL SOCIETY OF EDINBURGH



## PROCEEDINGS

Section A (Mathematics)

ISSN 0308-2105

PUBLISHED BY THE ROYAL SOCIETY OF EDINBURGH  
22 GEORGE STREET, EDINBURGH, EH2 2PQ

1986

## EDITORIAL BOARD

### Executive Editors

T. S. BLYTH  
University of St Andrews

R. J. KNOPS  
Heriot-Watt University

A. M. SINCLAIR  
University of Edinburgh

J. M. BALL  
Heriot-Watt University  
F. F. BONSALL  
University of Edinburgh  
J. W. S. CASSELS  
University of Cambridge  
M. S. P. EASTHAM  
King's College, London  
J. R. HUBBUCK  
University of Aberdeen

F. M. LESLIE  
University of Strathclyde  
J. B. MCLEOD  
University of Oxford  
E. G. REES  
University of Edinburgh  
D. A. R. WALLACE  
University of Stirling  
J. R. L. WEBB  
University of Glasgow

A. D. SANDS  
University of Dundee

C. D. WATERSTON  
*General Secretary*  
Royal Society of Edinburgh

W. DUNCAN  
*Executive Secretary*  
Royal Society of Edinburgh

### Consulting Editors

H. AMANN  
Universität Zürich  
M. F. ATIYAH  
University of Oxford  
H. BREZIS  
Université de Paris VI  
Y. S. CHIN  
Academia Sinica, Beijing, China  
R. G. DOUGLAS  
State University of New York at Stony Brook, USA  
L. C. EVANS  
University of Maryland, College Park, USA  
L. E. FRAENKEL  
University of Sussex  
J. K. HALE  
Brown University, Providence, RI, USA  
TOSIO KATO  
University of California, Berkeley, USA  
ROBERT V. KOHN  
New York University  
J. KURZWEIL  
Matematický ústav ČSAV, Praha, Czechoslovakia

D. LIVINGSTONE  
University of Birmingham  
J. E. MARSDEN  
University of California, Berkeley, USA  
J. MAWHIN  
Université Catholique de Louvain  
TAKAAKI NISHIDA  
Kyoto University, Japan  
A. PAZY  
The Hebrew University of Jerusalem  
DAVID L. RUSSELL  
University of Wisconsin, Madison, USA  
C. A. STUART  
École Polytechnique Fédérale de Lausanne  
L. TARTAR  
Centre d'Etudes de Limeil, France  
N. S. TRUDINGER  
Australian National University, Canberra, Australia  
W. WENDLAND  
Technische Hochschule Darmstadt  
A. ZETTL  
Northern Illinois University, De Kalb, USA