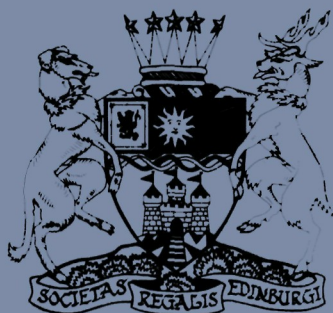


PEAMDU 120 (191–382) 1992

Volume 120: Parts 3/4

# 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  
1992

# EDITORIAL BOARD

## Executive Editors

J. M. BALL  
Heriot-Watt University

A. M. DAVIE  
University of Edinburgh

T. J. LYONS  
University of Edinburgh

---

M. F. ATIYAH  
University of Cambridge  
A. D. D. CRAIK  
University of St Andrews  
R. FLETCHER  
University of Dundee  
T. A. GILLESPIE  
University of Edinburgh  
O. PENROSE  
Heriot-Watt University

J. R. RINGROSE  
University of Newcastle  
upon Tyne  
B. STRAUGHAN  
University of Glasgow  
R. J. KNOPS  
*Curator*  
Heriot-Watt University

---

## Consulting Editors

H. BREZIS  
Université de Paris VI  
C. M. DAFERMOS  
Brown University,  
Providence, RI, USA  
S. K. DONALDSON  
University of Oxford  
R. G. DOUGLAS  
State University of New York at  
Stony Brook, USA  
L. E. FRAENKEL  
University of Bath  
M. GIAQUINTA  
Università degli  
Studi di Firenze  
J. K. HALE  
Georgia Institute of Technology,  
USA  
K. KIRCHGASSNER  
Universität Stuttgart  
ROBERT V. KOHN  
New York University  
P. L. LIONS  
Université de Paris IX  
H. MATANO  
University of Tokyo,  
Japan  
M. MIMURA  
Okayama University,  
Japan

O. A. OLEINIK  
Moscow State University,  
USSR  
A. YU. OLSHANSKII  
Moscow State University,  
USSR  
D. S. PASSMAN  
University of Wisconsin-  
Madison  
W. G. STRANG  
Massachusetts Institute of  
Technology, Cambridge, USA  
Ç. A. STUART  
École Polytechnique Fédérale  
de Lausanne  
L. TARTAR  
Carnegie-Mellon University,  
Pittsburgh, USA  
J. TOLAND  
University of Bath  
N. S. TRUDINGER  
Australian National University,  
Canberra, Australia  
G. Q. ZHANG  
Peking University, Beijing  
W. A. ZHENG  
Northwestern University, USA

*Publications Manager*, Royal Society of Edinburgh: T. G. Dart

*The Royal Society of Edinburgh Proceedings Section A Mathematics* is published every two months by the Royal Society of Edinburgh. Subscription price is £175.00 for six issues (3 volumes). Second Class postage paid at Rahway N.J., Postmaster send address corrections to *The Royal Society of Edinburgh Proceedings Section A Mathematics*, c/o Mercury Airfreight International Ltd Inc., 2323 Randolph Avenue, Avenel, New Jersey 07001, U.S.A.

(Issued 8 April 1992)