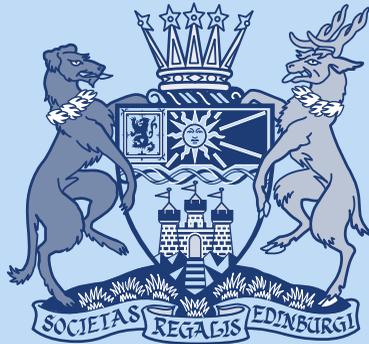


Volume 152 Part 6 (2022) pages 1361–1632

ISSN 0308-2105

THE ROYAL SOCIETY OF
EDINBURGH



PROCEEDINGS SECTION A
MATHEMATICS

PUBLISHED BY THE RSE SCOTLAND FOUNDATION
22 GEORGE STREET, EDINBURGH EH2 2PQ

EDITORIAL BOARD

J. M. FRASER (Editor in Chief)

University of St Andrews

Fractal geometry

A. BARTEL

University of Glasgow

Number theory, arithmetic geometry, representation theory of finite groups

T. E. BRENDLE

University of Glasgow

Geometric and combinatorial group theory; low dimensional topology

I. CHEVYREV

University of Edinburgh

Stochastic and rough analysis

F. A. DAVIDSON

University of Dundee

Quantitative (systems) biology; applied analysis

L. FOSCOLO

University College London

Differential geometry, geometric analysis

M. GRANT

University of Aberdeen

Algebraic and differential topology and their applications

S. GUTIERREZ

University of Birmingham,

Harmonic analysis with applications to PDEs

J. HICKMAN

University of Edinburgh

Harmonic analysis

S. HUCZYNSKA

University of St Andrews

Combinatorics, graph theory, mathematical aspects of cryptography

Y. LEN

University of St Andrews

Algebraic and tropical geometry

X. LI

University of Glasgow

Operator algebras and related topics

D. MACLAGAN

University of Warwick

Combinatorial and computational commutative algebra and algebraic geometry

A. MONDINO

University of Oxford

Geometric analysis, optimal transport, analysis and geometry of metric (measure) spaces

V. MOROZ

University of Swansea

Nonlinear elliptic PDEs

S. PRENDIVILLE

Lancaster University

Additive combinatorics and analytic number theory

J. C. ROBINSON

University of Warwick

Ordinary and Partial Differential Equations

L. SCARDIA

Heriot-Watt University

Calculus of variations and PDEs

M. J. TINDALL

University of Reading

Mathematical biology, pharmacology and medicine

A. Y. VERETENNIKOV

University of Leeds

Stochastic analysis

S. WHITE

University of Oxford

Functional analysis and operator algebras

S. ZELIK

University of Surrey

Dynamical systems and PDEs – theory and applications

Curator

K. RUDY

University of St Andrews

Subscription details

The journal is published and distributed every two months by Cambridge University Press on behalf of the RSE Scotland Foundation.

An annual subscription costs £714.00/\$1330.00 (Online plus Print) or £620.00/\$1137.00 (Online only). Orders should be placed with Cambridge University Press, Journals Fulfilment Department, UPH, Shaftesbury Road, Cambridge CB2 8BS UK Telephone: +44 (0)1223 326070; Fax: +44 (0)1223 325150; e-mail: journals@cambridge.org.

This journal is included in the Cambridge Core service which can be found at <https://www.cambridge.org/core/journals/proceedings-of-the-royal-society-of-edinburgh-section-a-mathematics>. Each new issue will be made available shortly before publication of the printed version. Volumes 61 to 147 (1941–2017) are also available via Cambridge Core.

© 2022 The Royal Society of Edinburgh

The Royal Society of Edinburgh, Scotland's National Academy, is Scottish Charity No. SC000470

The RSE Scotland Foundation, a charitable body connected to the Society, is Scottish Charity

No. SC024636