THE EDINBURGH MATHEMATICAL SOCIETY

The Edinburgh Mathematical Society was instituted in 1883 for "the promotion and extension of Mathematical Science, Pure and Applied".

Members may subscribe to the *Proceedings* at a reduced rate. Further information about membership can be obtained from the Secretary.

The Society's address is

The Secretary The Edinburgh Mathematical Society James Clerk Maxwell Building The King's Buildings Edinburgh EH9 3JZ Scotland, UK

Submission of papers

Papers to be considered for publication (2 copies) should be sent to the appropriate Subject Editor, or to the Secretary. The style and arrangement should conform to current practice in the *Proceedings*. Each manuscript should contain a short abstract of not more than 200 words and also a primary classification number from the American Mathematical Society's 2000 Mathematics Subject Classification Scheme. Authors are encouraged to use TeX typesetting software to prepare their papers. The LaTeX macro package is especially recommended, and a class file, together with a brief guide is available from the Society's Website: www.maths.ed.ac.uk/edmathsoc/ Once an article has reached its final form and is accepted for publication, authors will be asked to supply the appropriate electronic file. This should be a single file, with any relevant macros included in the preamble, and named after the article number (as assigned by the Society, e.g. ems0431.tex).

Figures in PostScript form are also welcome, and should be submitted at the same time as the TeX file for the paper (in zipped format if appropriate).

One proof is supplied, which should be corrected and returned promptly. Excessive corrections may be charged to authors. Fifty free offprints will be supplied.

Addresses of editors

A. M. Etheridge Department of Statistics Oxford University 1 South Parks Road Oxford OX1 3TG

R. W. K. Odoni Department of Mathematics University of Glasgow University Gardens Glasgow G12 8QW

P. R. Turner Department of Mathematics Heriot-Watt University Riccarton Edinburgh EH14 4AS

A. S. Wassermann Department of Mathematics University of Glasgow University Gardens Glasgow G12 8QW L. O'Carroll Department of Mathematics and Statistics The University of Edinburgh James Clerk Maxwell Building The King's Buildings Edinburgh EH9 3JZ

B. Straughan Department of Mathematics University of Glasgow University Gardens Glasgow G12 8QW

I. Tweddle Department of Mathematics University of Strathclyde Livingstone Tower Richmond Street Glasgow G1 1XH

G. A. Watson Department of Mathematics and Computer Science University of Dundee Dundee DD1 4HN

Proceedings of the Edinburgh Mathematical Society

| VOLUME 43 (SERIES II). PART 3 | OCTOBER 2000 |
|--|---------------------|
| D erivations of 2-subhomogeneous C*-algebras D. W. B. Somerset | 449 |
| Limiting behaviours of non-oscillatory solutions of a pair of couple differential equations W, T, Li and $S, S, Cheng$ | ed nonlinear 457 |
| On the solution sets to differential inclusions on an unbounded in $V.\ Staicu$ | iterval 475 |
| Higher-order estimates for fully nonlinear difference equations. I D. W. Holtby | 485 |
| On the essential spectrum of Banach-space operators J. Eschmeier | 511 |
| On the limit cycles of polynomial differential systems with homogononlinearities C. Li. W. Li, J. Llibre and Z. Zhang | geneous 529 |
| Elliptic problems in \mathbb{R}^n with discontinuous nonlinearities G. Bonanno and S. A. Marano | 545 |
| Rank properties in finite inverse semigroups M. I. Marques Riberro | 559 |
| Extremal solutions and strong relaxation for nonlinear periodic e inclusions $N. S. Papageorgiou and N. Yannakakis$ | volution 569 |
| Some examples of critical points for the total mean curvature fun J. Arroyo. M. Barros and Ø. J. Garay | ctional 587 |
| Jacobians of singular spectral curves and completely integrable sy $O.$ Vivolo | vstems 605 |
| On the blow-up and positive entire solutions of semilinear elliptic $JL.$ Chern | equations 625 |
| An algorithm for constructing multidimensional biorthogonal per multiwavelets S. S. Goh and K. M. Teo | iodic 633 |
| Infinite metacyclic groups and their non-abelian tensor squares J. R. Beuerle and LC. Kappe | 651 |
| Book Reviews | 663 |