

NOTES FOR AUTHORS

Proceedings of the Royal Society of Edinburgh: Section A is a general journal, and papers in all areas of mathematics will be considered. Papers to be considered for publication should be sent to the Editorial office at the International Centre for Mathematical Sciences. Please address packages to Mrs Tracey Dart, Executive Director, ICMS, 14 India Street, Edinburgh EH3 6EZ, Scotland, UK.

A paper by more than one author must be submitted with a statement, signed by each author, to the effect that the paper in its entirety is approved by the joint authors and naming the author who will be responsible for correspondence with the Society.

Authors will receive fifty (50) offprints free of charge, this number to be shared between joint authors. Additional offprints may be obtained, in units of fifty, at a fixed scale of prices given on a form which will be attached to the proof.

Authors must prepare their papers as concisely as possible. Manuscripts should be submitted in triplicate, on single-sided A4 paper, double spaced with adequate margins. Authors are advised to retain a copy of their papers as the Society cannot accept responsibility for any loss.

Every paper must be accompanied by a Synopsis, in general not exceeding two hundred words, which will be printed in small type at the beginning of the paper.

References within the text should be indicated by bold numbers in square brackets, e.g. [2] or [3, p. 167]. References at end of text should be in alphabetical order, numbered sequentially.

Authors should ensure that punctuation carries through the mathematics in the proper manner. The use of hyphens should be consistent. In the text avoid such abbreviations as: iff, w.r.t. and thm.

Footnotes should be avoided. Headings should not be underlined. Every effort should be made to avoid complicated subscripts, superscripts, ranges of summation and integration. Replace $e^{(\dots)}$ by $\exp[\dots]$ if the expression in parenthesis is complicated. Use the prime ' or d/dx , but preferably not a dot, to denote ordinary differentiation. If possible use subscripts to denote partial differentiation of $\partial/\partial x$ etc. Bars reaching over several letters should be avoided: use $\sqrt{}$ or the exponent $1/2$ for the square root.

Note that confusion very often arises between 1 (one) and l (ell); 0 (zero) and O (Capital oh); \circ (composition) and o (lower case oh); x and \times ; U and \cup ; c and \subset ; \in (belongs to) and ε (epsilon); \emptyset (empty set) and ϕ (phi); $_1$ and comma $,$; prime ' and 1 ; K and κ ; p and ρ ; w and ω ; \sum (summation) and Σ (capital sigma); \prod (product) and Π (capital pi); v (lower case vee) and ν (Greek nu); a (lower case a) and α (Greek alpha); y (lower case y) and γ (Greek gamma). Please provide pencilled indicators in the margin where necessary. Where capitals and lower case of the same shape have to be printed, please indicate accordingly. Show italics by single underlining (except in the formulae which are set up normally in italics), bold face/Clarendon by wavy underlining and Greek by red underlining.

The statement of theorems, lemmas, et cetera, will be printed in italics and should be underlined. In definitions key words only should be in italics.

Equations should be indicated by numbers in parentheses in the right-hand margin.

Proofs of papers will be sent to the author. The cost of *authors' corrections in excess of five per cent* of the printers' charge for the setting of a particular paper *will be charged to the author*.

Copyright

© 1998 The Royal Society of Edinburgh

Except as otherwise permitted under the Copyright, Designs and Patents Act, 1988, this publication may only be reproduced, stored or transmitted, in any form or by any means, with the prior permission in writing of the publisher, or, in the case of reprographic reproduction, in accordance with the terms of a licence issued by the Copyright Licensing Agency. In particular, the Society permits the making of a single photocopy of an article from this issue (under Sections 29 and 38 of the Act) for an individual for the purposes of research or private study.

PROCEEDINGS OF THE ROYAL SOCIETY OF EDINBURGH

(Section A)

Volume 128

1998

Part 4

CONTENTS

G. R. BURTON and R. J. DOUGLAS	
Rearrangements and polar factorisation of countably degenerate functions	671
J. DUOANDIKOETXEA and A. VARGAS	
Maximal operators associated to Fourier multipliers with an arbitrary set of parameters	683
P. FREITAS and G. SWEERS	
Positivity results for a nonlocal elliptic equation	697
L. GRAFAKOS and J. KINNUNEN	
Sharp inequalities for maximal functions associated with general measures	717
R. J. IÓRIO, Jr. and W. V. L. NUNES	
On equations of KP-type	725
M. KWAK	
A semilinear heat equation with singular initial data	745
P. LAURENÇOT and D. WRZOSEK	
Fragmentation–diffusion model. Existence of solutions and their asymptotic behaviour	759
T. LUO and R. NATALINI	
BV solutions and relaxation limit for a model in viscoelasticity	775
T. LUO and T. YANG	
Global weak solutions for elastic equations with damping and different end states	797
Y. SHEN and S. YAN	
A singularly perturbed elliptic problem involving supercritical Sobolev exponent	809
J.-G. SI and S. S. CHENG	
Smooth solutions of a nonhomogenous iterative functional differential equation	821
G. SINNAMON	
One-dimensional Hardy-type inequalities in many dimensions	833
J. WEI	
On the interior spike solutions for some singular perturbation problems	849
J. ZHAI	
Heat flow with tangent penalisation converging to mean curvature motion	875

(Issued 14 August 1998)

ISSN 0308–2105

Proc. Roy. Soc. Edinb., A 128

Managed by ICMS, Edinburgh

Published by the RSE Scotland Foundation

Printed by The Charlesworth Group, Huddersfield

Distributed by CAB International, Wallingford