MATHEMATIKA

A JOURNAL OF PURE AND APPLIED MATHEMATICS

0

J. H. H. CHALK On Hua's estimates for exponential sums 115 J. BRÜDERN Additive Diophantine inequalities with mixed powers I 124 J. BRÜDERN Additive Diophantine inequalities with mixed powers II 131 D. E. DOBBS and M. FONTANA Seminormal rings generated by algebraic integers 141 W. STADJE An extension theorem for convex functions and an application to Teicher's characterization of the normal distribution 155 A. BOIVIN T-invariant algebras on Riemann surfaces 160 **S. WATARI** Construction of polynomials on a number of pseudoconvex domains 172 **S. H. SMITH** A note on the Jeffery paradox 178 **B. J. HARRIS** On the asymptotic properties of linear differential equations 187 **P. D. T. A. ELLIOTT** Multiplicative functions on arithmetic progressions 199 **P. MATTILA** Spherical averages of Fourier transforms of measures with finite energy; dimensions of intersections and distance sets U. BREHM Maximally symmetric polyhedral realizations of Dyck's regular map 229 **U. BREHM** A maximally symmetric polyhedron of genus 3 with 10 vertices 237 N. K. RIBARSKA Internal characterization of fragmentable spaces 243 I. NAMIOKA Radon-Nikodým compact spaces and fragmentability 258 BOOK BEVIEW

NDEX	••	••	28	37



ONDON

https://doi.org/10.1112/S0025579300013358 Published online by Cambridge University Press

MATHEMATIKA

A JOURNAL OF PURE AND APPLIED MATHEMATICS

Founded by

H. DAVENPORT

Edited by

J. M. ANDERSON, S. N. BROWN, P. M. COHN,

L. M. HOCKING, D. G. LARMAN, M. J. LIGHTHILL,

P. McMULLEN, D. H. MICHAEL, C. A. ROGERS, F. T. SMITH

MATHEMATIKA is published by the Department of Mathematics, University College London. It contains original notes and memoirs on mathematics and its applications. Any diagram submitted with manuscripts should be of a size not exceeding 1.5 times the final size for printing. Authors are requested to submit a copy with their original manuscript. Each author of each article published will receive 50 reprints free.

Two parts of MATHEMATIKA are published each year. The parts normally appear in June and December, but are sometimes delayed.

The subscription price for the volume of two parts for 1988 is £36.00. Cheques and Bankers' drafts should be made payable to UNIVERSITY COLLEGE LONDON and should be sent to

MATHEMATIKA

J. W. Arrowsmith Ltd. Winterstoke Road Bristol BS3 2NT England

Overseas subscribers must arrange to pay by Bankers' Draft drawn in Sterling on London, otherwise bank collection charges absorb a substantial proportion of the total payment, money we can ill afford to lose. All enquiries for the current and future volumes should be sent to MATHEMATIKA, J. W. Arrowsmith Ltd., at the above address.

A special subscription rate of £28.00 applies to members of some national Mathematical Societies requiring MATHEMATIKA for their personal use.

Back numbers are available from the Department of Mathematics, University College London, Gower Street, London WC1E 6BT, England. Please write to the Department stating your requirements and asking for a quotation.

MATHEMATIKA

A JOURNAL OF PURE AND APPLIED MATHEMATICS

Founded by H. DAVENPORT

Edited by

J. M. ANDERSON S. N. BROWN P. M. COHN L. M. HOCKING D. G. LARMAN M. J. LIGHTHILL P. McMULLEN D. H. MICHAEL C. A. ROGERS F. T. SMITH

VOLUME 34

1987

Published by THE DEPARTMENT OF MATHEMATICS UNIVERSITY COLLEGE LONDON Printed by J. W. ARROWSMITH LTD WINTERSTOKE ROAD BRISTOL BS3 2NT ENGLAND

© UNIVERSITY COLLEGE LONDON, 1987