Mathematika

VOLUME 62, 2016

Editorial Board

Managing Editor

ALEX SOBOLEV, University College London Analysis, spectral theory, PDEs

KEITH BALL FRS, University of Warwick Discrete geometry, functional analysis, information theory

IMRE BÁRÁNY, University College London Convex geometry with applications

ANTHONY CARBERY, The University of Edinburgh Classical harmonic analysis

TIMOTHY GOWERS FRS, University of Cambridge Analysis, combinatorics

ANDREW GRANVILLE, Université de Montréal and University College London Number theory, additive combinatorics

FRANCIS JOHNSON, University College London Algebra, geometric group theory and topology MINHYONG KIM, University of Oxford and Ewha Womans University Number theory, algebraic geometry

IMRE LEADER, University of Cambridge Combinatorics, graphs

ALEXANDER MOVCHAN, University of Liverpool Mathematical methods of solids, boundary value problems

ASSAF NAOR, Princeton University Analysis, geometry

FRANK SMITH, University College London Industrial and biomedical modelling

KANNAN SOUNDARARAJAN, Stanford University Number theory

ROBERT VAUGHAN FRS, Pennsylvania State University Analytic number theory

Ownership and Publication of Mathematika

Mathematika was founded in the early 1950s by Harold Davenport and is owned by University College London. Since 2010, the journal has been published on behalf of its owner by the London Mathematical Society (LMS). The LMS celebrated its 150th anniversary in 2015; it is the major British learned Society for mathematics and publishes twelve other journals, five of which are in collaboration with other learned societies. Cambridge University Press prints and distributes *Mathematika* under agreement with the London Mathematical Society.

All articles are available electronically via Cambridge Journals Online.

Aims and Scope

Mathematika publishes both pure and applied mathematical articles of the highest quality. The traditional emphasis has been towards the purer side of mathematics but applied mathematics and articles addressing both aspects are equally welcome.

Submission of Manuscripts

Authors wishing to submit a paper for publication should follow the guidelines available via the webpage www.lms.ac.uk/publications.

Authors will be asked to assign copyright to University College London prior to publication.

No paper should have been published or be under consideration for publication elsewhere. Nor may the paper be submitted elsewhere while it remains under consideration by *Mathematika*.

Offprints

A URL giving free access to the final published article will be provided free of charge. Offprints can be ordered on the form which will accompany the page proofs.

Printed back numbers

Orders for volume 56 (2010) onwards should be sent to Cambridge University Press. Printed copies of volume 55 (2009) and earlier volumes are available from the Department of Mathematics, University College London. Please contact mathematika@math.ucl.ac.uk.

Copying

This journal is registered with the Copyright Clearance Centre, 222 Rosewood Drive, Danvers, MA 01923, USA. Organizations in the USA that are registered with the CCC may therefore copy material beyond the limits permitted by sections 107 and 108 of US copyright law subject to payment to CCC of the per-copy fee. This consent does not extend to multiple copying for promotional and commercial purposes. Code 0025-5793/2016.

Organizations authorized by the Copyright Licensing Agency may also copy material subject to the usual conditions. For all other use, permission should be sought from Cambridge or the American branch of Cambridge University Press.

Published by the London Mathematical Society on behalf of University College London.

This journal has been printed on FSC-certified paper and cover board. See www.fsc.org.

Typeset by Sunrise Setting Ltd, Brixham, UK. Printed in the UK by Bell and Bain Ltd.

Mathematika

VOLUME 62 PART 3 2016

Bernardo González Merino and Matthias Henze A generalization of the discrete version of Minkowski's fundamental theorem	637-652
Velleda Baldoni, Nicole Berline, Jesús A. De Loera, Matthias Köppe and Michèle Vergne Intermediate sums on polyhedra II: bidegree and Poisson formula	653-684
Spiros A. Argyros, Ioannis Gasparis and Pavlos Motakis $\$ On the structure of separable \mathcal{L}_{∞} -spaces	685-700
Robert J. Downes and Dmitri Vassiliev Spectral theoretic characterization of the massless Dirac action	701–718
Neal Bez, Chris Jeavons and Tohru Ozawa Some sharp bilinear space–time estimates for the wave equation	719-737
Richard Oberlin Unions of lines in F^n	738-752
Liangpan Li The Duffin–Schaeffer-type conjectures in various local fields	753-800
Srilakshmi Krishnamoorthy and M. Ram Murty On sign changes for almost prime coefficients of half-integral weight modular forms	801-810
Nicholas M. Katz A note on random matrix integrals, moment identities, and Catalan numbers	811-817
Christos Saroglou More on logarithmic sums of convex bodies	818-841
Igor E. Shparlinski On bilinear exponential and character sums with reciprocals of polynomials	842-859
Tsz Ho Chan Shortest distance in modular hyperbola and least quadratic non-residue	860-865
Yuk-kam Lau, Emmanuel Royer and Jie Wu Sign of Fourier coefficients of modular forms of half-integral weight	866-883
Michael Coons, Mumtaz Hussain and Bao-Wei Wang A dichotomy law for the Diophantine properties in β -dynamical systems	884-897
Rizwanur Khan The divisor function in arithmetic progressions modulo prime powers	898–908
Michał Adamaszek and Jan Hladký Upper bound theorem for odd-dimensional flag triangulations of manifolds	909–928
Pedro Fernández-Martínez and Teresa Signes A limiting case of ultrasymmetric spaces	929–948
Benjamin Reichenwallner and Matthias Reitzner On the monotonicity of the moments of volumes of random simplices	949-958

Cambridge Journals Online For further information about this journal please go to the journal web site at: journals.cambridge.org/mtk in organized but 12/50255 and Suberlau Published online by Cambridge University Press

