# INDEX

ABTAHI, F., AMINI, H. G., LOTFI, H. A. and REJALI, A.; An arbitrary	
intersection of $L_p$ -spaces	433
ALAVI, S. H.; Triple factorisations: group theoretic and geometric approaches	521
ALEMANY, E., BELTRÁN, A. and FELIPE, M. J.; Itô's theorem on groups	
with two class sizes revisited	476
AMINI, H. G.; see ABTAHI, F.	433
BELTRÁN, A.; see ALEMANY, E.	476
BIAN, Q.; see ZHOU, S.	60
CAI, T.; see SHEN, Z.	105
CASOLO, C. and TOMBARI, E. M.; Conjugacy class sizes of certain direct	
products	217
CHEN, MR. and CHEN, ZX.; On properties of finite-order meromorphic	
solutions of a certain difference Painlevé I equation	463
CHEN, Y.; The invariants field of some finite projective linear group actions	19
CHEN, YG.; see YANG, QH.	79
CHEN, ZX.; see CHEN, MR.	463
DU, N.; see FAN, J.	11
FAN, J., DU, N. and ZENG, J.; The classification of some modular Frobenius	
groups	11
FELIPE, M. J.; see ALEMANY, E.	476
FRANCE-JACKSON, H.; On bad supernilpotent radicals	271
FU, X.; On the algebraic convergence of finitely generated Kleinian groups in all dimensions	275
HEGEDÜS, G. and KASPRZYK, A. M.; The boundary volume of a lattice	
polytope	84
HU, Z.; Essential norm of extended Cesàro operators from one Bergman space	
to another	307
HUA, H.; On the degree distance of some composite graphs	164
HUANG, I-C.; Two approaches to Möbius inversion	68
JIN, F., ZHOU, H. and XU, J.; A new construction for pooling designs	121
KĄKOL, J. and LÓPEZ-PELLICER, M.; Note about Lindelöf $\Sigma$ -spaces $vX$	114
KALIAJ, S. B.; A variational McShane integral characterisation of the weak	
Radon–Nikodym property	456
KASPRZYK, A. M.; see HEGEDÜS, G.	84
KENDERDINE, R. D.; Wavelet-based resampling techniques	351
KIAN, M.; see MOSLEHIAN, M. S.	128
KIM, J. M. and RYU, J.; On the class number and the fundamental unit of the real quadratic field $k = \mathbb{Q}(\sqrt{pq})$	359

526

KIM, J. Y. and LEE, Y. M.; Sums of distinct integral squares in $\mathbb{Q}(\sqrt{2})$ , $\mathbb{Q}(\sqrt{3})$	1
	1
type inequalities	380
LAHIRI, I. and MUKHERJEE, R.; Uniqueness of entire functions sharing a	
value with linear differential polynomials	295
LE BOUDEC, P.; Power-free values of the polynomial $t_1 \cdots t_r - 1$	154
LEE, Y. M.; see KIM, J. Y.	1
LI, J.; see WU, C.	280
LI, Y.; Jucys–Murphy elements and centres of cellular algebras	261
LIOU, YC.; see YAO, Y.	232
LOTFI, H. A.; see ABTAHI, F.	433
LÓPEZ-PELLICER, M.; see KĄKOL, J.	114
LÓPEZ, S. C., MUNTANER-BATLE, F. A. and RIUS-FONT, M.; Addition to 'Bi-magic and other generalizations of super edge-magic labelings'	350
MA, SM.; Counting permutations by numbers of excedances, fixed points and	
cycles	415
MARINO, G.; see YAO, Y.	232
MARKOWSKY, G.; Birth-death chains and the local time of Brownian motion	497
MEŠTROVIĆ, R.: An extension of Surv's identity and related congruences	482
MITITELU, G.: Integral equation methods in change-point detection problems	518
MOGHADASI, S. R.; Polar decomposition of the <i>k</i> -fold product of Lebesgue measure on $\mathbb{R}^n$	315
MOSIEUIAN M S and KIAN M: Janson tune inequalities for O aloss	515
functions	128
MU C : see WU C	280
MUKHAMEDOV F: On tensor products of weak mixing vector sequences and	200
their applications to uniquely <i>E</i> -weak mixing C*-dynamical systems	46
MUKHERJEE, R.: see LAHIRI, I.	295
MUNTANER-BATLE, E.A.: see LÓPEZ, S. C.	350
PANHOLZER A and PRODINGER H: Asymptotic results for the number of	550
naths in a orid	446
PRODINGER, H.: see PANHOLZER, A.	446
PRZEBIERACZ B: On some Pexider-type functional equations connected	
with the absolute value of additive functions. Part I	191
PRZEBIERACZ, B.; On some Pexider-type functional equations connected with the absolute value of additive functions. Part II	202

REJALI, A.; see ABTAHI, F.	433
RIUS-FONT, M.; see LÓPEZ, S. C.	350
RYU, J.; see KIM, J. M.	359
SA NGIAMSUNTHORN, P.; Domain perturbation for parabolic equations	174
SAMEA, H.; Weak forms of amenability for Banach algebras	509
SASAHARA, T.; Biharmonic submanifolds in nonflat Lorentz 3-space forms	422
SHEN, Z. and CAI, T.; Rational points on three superelliptic curves	105
SHPARLINSKI, I.; Sum–product estimates and multiplicative orders of $\gamma$ and $\gamma + \gamma^{-1}$ in finite fields	505
STANCU-DUMITRU, D.; Two nontrivial weak solutions for the Dirichlet	
problem on the Sierpiński gasket	395
SUO, J. and WANG, W.; Two-interval even-order differential operators in modified Hilbert spaces	241
SZAREK, T. Z.; Multipliers of Laplace transform type in certain Dunkl and	
Laguerre settings	177
TACHEV, G.; Pointwise approximation by Bernstein polynomials	353
THOMAS, R. S. D.; Perfect colourings of isonemal fabrics by thick striping	325
TOMBARI, E. M.; see CASOLO, C.	217
WANG, L. and ZHOU, Y.; Correction to 'Decomposing linear transformations'	172
WANG, W.; see SUO, J.	241
WANG, Y.; Global well-posedness for the generalised fourth-order Schrödinger equation	371
WU, C., MU, C. and LI, J.; Uniqueness of meromorphic functions sharing one value	280
WU, Z.; see ZENG, Q.	26
XU, J.; see JIN, F.	121
XU, L.; see ZHOU, S.	60
YANG, QH. and CHEN, YG.; Sumsets and difference sets containing a common term of a sequence	79
YAO, Y., LIOU, YC. and MARINO, G.; Strong convergence of some	
algorithms for $\lambda$ -strict pseudo-contractions in Hilbert space	232
ZENG, HG.; see ZHOU, ZH.	143
ZENG, J.; see FAN, J.	11
ZENG, Q., ZHONG, H. and WU, Z.; Small essential spectral radius	
perturbations of operators with topological uniform descent	26
ZHANG, L.; see ZHOU, ZH.	143
ZHONG, H.; see ZENG, Q.	26
ZHOU, H.; see JIN, F.	121
ZHOU, S., BIAN, Q. and XU, L.; Binding number and minimum degree for fractional ( <i>k</i> , <i>m</i> )-deleted graphs	60

527

528

ZHOU, Y.; see WANG, L.	172
ZHOU, ZH., ZHANG, L. and ZENG, HG.; Essential commutativity of some	
integral and composition operators	143

## INFORMATION FOR AUTHORS

The *Bulletin of the Australian Mathematical Society* aims at quick publication of original research in all branches of mathematics. To ensure speedy publication, only articles which are sufficiently well presented, able to be published without revision, and which are judged by the Editor (often in consultation with an Associate Editor) to be competitive are refereed. This policy is in the interests of authors, as a quick rejection is better than a slow rejection. The *Bulletin* receives more than five times the material that can be published, therefore there are many commendable papers not accepted. Editorial decisions on acceptance or otherwise are taken quickly, normally within a month of receipt of the paper. Papers are accepted only after peer review.

Manuscripts are accepted for review with the understanding that the same work is not concurrently submitted elsewhere. For a paper to be acceptable for publication, not only should it contain new and interesting results, but also

- (i) the exposition should be clear and attractive, and
- (ii) the manuscript should be in publishable form, without revision.

Further information regarding these requirements may be found through our website www.austms.org.au/Bulletin. Authors are asked to avoid, as far as possible, the use of mathematical symbols in the title.

Articles should be prepared in LATEX using  $A_MS$ -LATEX packages and submitted as a PDF file via our journal management system, at www.austms.org.au/Publications/Submissions/BAustMS. This permits authors to track their papers through the editorial process. Recent versions of TEX are able to produce PDF files directly. A LATEX class file for the *Bulletin* can be downloaded from the website. Authors who need assistance may email the secretary of the *Bulletin* at jams@ms.unimelb.edu.au.

Authors are advised to keep copies of all files of the submitted article; the *Bulletin* will not accept responsibility for any loss.

## EDITORIAL POLICY

**1. References.** Arrange references alphabetically (by surname of the first author) and cite them numerically in the text. Ensure the accuracy of the references: authors' names should appear as in the work quoted. Include in the list of references only those works cited, and avoid citing works which are in preparation or submitted. Where the work cited is not readily accessible (for example, a preprint) a copy of the article should be included with your submission.

#### 2. Abstracts.

- 1. Each paper must include an abstract of not more than 150 words, which should contain a brief but informative summary of the contents of the paper, but no inessential details.
- 2. The abstract should be self-contained, but may refer to the title.
- 3. Specific references (by number) to a section, proposition, equation or bibliographical item should be avoided.

**3. Subject Classification and Key Words.** Authors should include a few key words and phrases and one or more classification numbers, following the American Mathematical Society 2010 Mathematics Subject Classification for all codes. Details of this scheme can be found on the web at www.ams.org/msc.

**4. Abstracts of PhD Theses.** The *Bulletin* endeavours to publish abstracts of all accepted Australasian PhD theses in mathematics. One restriction, however, is that the abstract must be received by the Editor within six months of the degree being approved.



This journal issue has been printed on FSC-certified paper and cover board. FSC is an independent, non-governmental, not-for-profit organisation established to promote the responsible management of the world's forests. Please see www.fsc.org for information.

#### **Table of Contents**

Pointwise approximation by Bernstein polynomials	
Tachev, G.	353
On the class number and the fundamental unit of the real quadratic field $k = \mathbb{Q}(\sqrt{pq})$	
Kim, J. M. & Ryu, J.	359
<b>Global well-posedness for the generalised fourth-order Schrödinger equation</b> <i>Wang, Y.</i>	371
<b>On some refinements and converses of multidimensional Hilbert-type inequalities</b> <i>Krnić</i> , <i>M</i> .	380
Two nontrivial weak solutions for the Dirichlet problem on the Sierpiński gasket	
Stancu-Dumitru, D.	395
Counting permutations by numbers of excedances, fixed points and cycles	
Ma, SM.	415
Biharmonic submanifolds in nonflat Lorentz 3-space forms	
Sasahara, T.	422
An arbitrary intersection of $L_p$ -spaces	
Abtahi, F., Amini, H. G., Lotfi, H. A. & Rejali, A.	433
Asymptotic results for the number of paths in a grid	
Panholzer, A. & Prodinger, H.	446
A variational McShane integral characterisation of the weak Radon-Nikodym	
property	
Kaliaj, S. B.	456
On properties of finite-order meromorphic solutions of a certain difference Painlevé I equation	
Chen, MR. & Chen, ZX.	463
Itô's theorem on groups with two class sizes revisited	
Alemany, E., B <mark>eltrán, A. &amp; Felipe,</mark> M. J.	476
An extension of Sury's identity and related congruences	
Meštrović, R.	482
Birth-death chains and the local time of Brownian motion	
Markowsky, G.	497
Sum-product estimates and multiplicative orders of $\gamma$ and $\gamma + \gamma^{-1}$ in finite fields	505
Weak forms of amenability for Banach algebras	505
Samea H	509
Sunta, 11.	505
Abstracts of Australasian PhD theses	
Integral equation methods in change-point detection problems	
Mititelu, G.	518
Triple factorisations: group theoretic and geometric approaches	
Alavi, S. H.	521
Author Index	525

**Cambridge Journals Online** For further information about this journal please go to the journal website at: journals.cambridge.org/baz



**CAMBRIDGE** UNIVERSITY PRESS