

INDEX

ARVANITOYEORGOS, A. and CHRYSIKOS, I.; Invariant Einstein metrics on generalized flag manifolds with two isotropy summands	237
BOOSS-BAVNBEK, B.; Basic functional analysis puzzles of spectral flow	145
BORISOV, D.; What is the higher-dimensional infinitesimal groupoid of a manifold?	155
BOTELHO, G., ÇALIŞKAN, E. and PELLEGRINO, D.; On the representation of multi-ideals by tensor norms	253
ÇALIŞKAN, E.; See BOTELHO, G.	253
CARVALHO, C., GRAY, R. D. and RUSKUC, N.; Presentations of inverse semigroups, their kernels and extensions	289
CHAKRABORTY, P. S.; From C^* -algebra extensions to compact quantum metric spaces, quantum $SU(2)$, Podleś spheres and other examples	1
CHRYSIKOS, I.; See ARVANITOYEORGOS, A.	237
DUCOURTIOUX, C. and OUEDRAOGO, M. F.; Uniqueness of traces on log-polyhomogeneous pseudodifferential operators	171
FARBER, M. and FROMM, V.; Telescopic linkages and a topological approach to phase transitions	183
FROMM, V.; See FARBER, M.	183
GRAY, R. D.; See CARVALHO, C.	289
HANNABUSS, K. C.; Some C^* -algebras associated to quantum gauge theories	9
HANNABUSS, K. C. and MATHAI, V.; Parametrized strict deformation quantization of C^* -bundles and Hilbert C^* -modules	25
HEUNEN, C., LANDSMAN, N. P., SPITTERS, B. and WOLTERS, S.; The Gelfand spectrum of a noncommutative C^* -algebra: a topos-theoretic approach	39
JORGENSEN, P. E. T. and PAOLUCCI, A. M.; States on the Cuntz algebras and p -adic random walks	197
LANDSMAN, N. P.; See HEUNEN, C.	39
LIANG, Y. and WU, Q.; The trace problem for totally positive algebraic integers	341
LIU, Z. K.; See WANG, Z. P.	385
MATHAI, V.; See HANNABUSS, K. C.	25
MICKELSSON, J.; Families of Dirac operators and quantum affine groups	213
MICKELSSON, J. and PAYCHA, S.; The logarithmic residue density of a generalized Laplacian	53
MIYAZAKI, T.; The shuffle variant of Jeśmanowicz' conjecture concerning Pythagorean triples	355
MURRAY, M. and STEVENSON, D.; A note on bundle gerbes and infinite-dimensionality	81

NODA, T.; Symplectic structures on statistical manifolds	371
OUEDRAOGO, M. F.; See DUCOURTIOUX, C.	171
PAOLUCCI, A. M.; See JORGENSEN, P. E. T.	197
PAYCHA, S.; See MICKELSSON, J.	53
PELLEGRINO, D.; See BOTELHO, G.	253
PETRICH, M.; Completely regular monoids with two generators	271
ROBINSON, D. W.; See TER ELST, A. F. M.	317
RUSKUC, N.; See CARVALHO, C.	289
SATI, H.; Geometric and topological structures related to M-branes II: twisted string and string ^c structures	93
SHU, B.; See YAO, Y.-F.	403
SIKORA, A.; See TER ELST, A. F. M.	317
SPITTERS, B.; See HEUNEN, C.	39
STEVENSON, D.; See MURRAY, M.	81
TER ELST, A. F. M., ROBINSON, D. W. and SIKORA, A.; Flows and invariance for degenerate elliptic operators	317
VOZZO, R. F.; Loop groups, string classes and equivariant cohomology	109
WALDORF, K.; A loop space formulation for geometric lifting problems	129
WANG, Z. P. and LIU, Z. K.; Some covers and envelopes in the chain complex category of R -modules	385
WOLTERS, S.; See HEUNEN, C.	39
WU, Q.; See LIANG, Y.	341
WU, S.; Geometric phases in the quantisation of bosons and fermions	221
YAO, Y.-F. and SHU, B.; Irreducible representations of the Hamiltonian algebra $H(2r; \mathfrak{n})$	403

JOURNAL OF THE AUSTRALIAN MATHEMATICAL SOCIETY

Submission of research papers in pure mathematics and statistics is invited under the condition that the paper has not been published and is not being considered for publication anywhere else.

The Journal is seeking articles of more general interest and of moderate length, preferring papers with a good introduction explaining the meaning and value of results. In view of the pressure on space, only papers highly rated by assessors can be accepted.

Authors should submit PDF files of papers to the Journal through our website www.austms.org.au/Publications/Submissions/JAustMS where they will be able to track the progress of their submission. It is also possible to submit the files by emailing a PDF file to jamsed@austms.org.au.

PREPARATION OF MANUSCRIPTS

1. Papers should be double spaced and have a generous margin. Authors should keep copies of all files.

2. Files must be prepared using \LaTeX or another variant of \TeX , and must not contain definitions of additional commands. A style file can be downloaded by following appropriate links on the Journal website.

3. Each manuscript should include an abstract of no more than 150 words, preferably containing no formulae, a list of keywords, a 2010 Mathematics subject classification, and a short title of no more than 40 characters.

4. For the style of references consult recent issues of the journal. The current usage is either the number referencing [1], [2], [3], or the letter referencing, such as [DS1], [DS2], [DS3] if the authors are N. Dunford and J. T. Schwartz, and the reference is to the 3 volumes of their monograph. In either style, references should be ordered alphabetically by the first author's name. Abbreviations of journal names should follow Mathematical Reviews.

5. Avoid abbreviations such as Thm., Prop., Eq., Ex., iff. In the text do not use the symbols \forall , \exists , \implies and \iff . For more information about our stylistic requirements, see the Journal website accessible through www.austms.org.au.

6. Graphics should be prepared to professional standards, preferably using Postscript or \LaTeX drawing facilities. Charges may apply if the typesetters have to recreate a graphics file because the original is not suitable for printing.

Copying: This journal is registered with the Copyright Clearance Center, 222 Rosewood Drive, Danvers, MA 01923, USA. Organizations in the USA who 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 of \$16.00. This consent does not extend to multiple copying for promotional and commercial purposes. Code 1446-7887/2011 \$16.00.

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 Cambridge University Press for the Australian Mathematical Publishing Association Incorporated. Printed in the United Kingdom at Bell & Bain Ltd, Glasgow.

© 2011 Australian Mathematical Publishing Association Inc.



MIX
Paper from
responsible sources
FSC® C007785

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

Table of Contents

Presentations of inverse semigroups, their kernels and extensions <i>Carvalho, C., Gray, R. D. & Ruskuc, N.</i>	289
Flows and invariance for degenerate elliptic operators <i>ter Elst, A. F. M., Robinson, D. W. & Sikora, A.</i>	317
The trace problem for totally positive algebraic integers <i>Liang, Y. & Wu, Q.</i>	341
The shuffle variant of Jeśmanowicz' conjecture concerning Pythagorean triples <i>Miyazaki, T.</i>	355
Symplectic structures on statistical manifolds <i>Noda, T.</i>	371
Some covers and envelopes in the chain complex category of R-modules <i>Wang, Z. P. & Liu, Z. K.</i>	385
Irreducible representations of the Hamiltonian algebra $H(2r; n)$ <i>Yao, Y.-F. & Shu, B.</i>	403
Author index	431