

INDEX

	PAGE
Ballesteros, J. J. N. & Fuster, M. C. R. Global bitangency properties of generic closed space curves	519
Barlow, M. T. & Taylor, S. J. Local dimension and regular points	361
Bass, R. F. A centred norm inequality for singular integral operators	369
Baxter, M. & Williams, D. Symmetry characterizations of certain distributions, 2: Discounted additive functionals and large deviations	599
Bekka, M. E. B. & Ludwig, J. On L^1 -kernels of unitary representations of semisimple Lie groups	348
Berend, D. & Moran, W. The inhomogeneous minimum of binary quadratic forms	7
Bolton, J. & Woodward, L. M. Minimal surfaces in CP^n with constant curvature and Kähler angle	287
Borwein, P. B. On the irrationality of certain series	141
Bruce, J. W. Lines, surfaces and duality	53
Buhmann, M. D. & Micchelli, C. A. On radial basis approximation on periodic grids	317
Cabo, A. J. An elementary proof of the Ambartzumian–Pleijel identity	535
Casacuberta, C. & Castellet, M. Localization methods in the study of the homology of virtually nilpotent groups	551
Castellet, M. & Casacuberta, C. Localization methods in the study of the homology of virtually nilpotent groups	551
Clunie, J. & Rahman, Q. I. Extension of a theorem of J. H. Grace to transcendental entire functions.	565
Coutinho, S. C. & Holland, M. P. Locally free $\mathcal{D}(\mathfrak{p}^n)$ -modules	233
Csörgö, M. & Horváth, L. Invariance principles for logarithmic averages	195
Dani, S. G. Invariance groups and convergence of types of measures on Lie groups	91
Ditzian, Z., Jiang, D. & Leviatan, D. Shape-preserving polynomial approximation in $C[-1, 1]$	309
Drnovšek, R. Spectral inequalities for compact integral operators on Banach function spaces	589
Duan, Z. Y. The structure of noetherian modules over hyperfinite groups	21
Florencio, M., Paúl, P. J. & Sáez, C. Duals of vector-valued Köthe function spaces	165
Fuster, M. C. R. & Ballesteros, J. J. N. Global bitangency properties of generic closed space curves	519
Gilmer, P. & Livingston, C. Discriminants of Casson–Gordon invariants	127
Girela, D. Mean growth of the derivative of certain classes of analytic functions	335
Goodey, P. & Weil, W. The determination of convex bodies from the mean of random sections	419
Gourdeau, F. Amenability of Lipschitz algebras	581
Greenberg, P. Torsion and periods in some groups of homeomorphisms of the circle	29
Greenlees, J. P. C. Generalized Eilenberg–Moore spectral sequences for elementary abelian groups and tori	77
Grekas, S. Isomorphic measures on compact groups	349
Hall, R. R. & Tenenbaum, G. On Behrend sequences.	467
Heil, W. & Raspopović, P. Dehn fillings of Klein bottle bundles	255
Holland, M. P. & Coutinho, S. C. Locally free $\mathcal{D}(\mathfrak{p}^n)$ -modules	233
Horváth, L. & Csörgö, M. Invariance principles for logarithmic averages	195
Jamjoom, F. B. The connection between the universal enveloping C^* -algebra and universal enveloping von Neumann algebra of a JW-algebra	575

Jiang, D., Leviatan, D. & Ditzian, Z. Shape-preserving polynomial approximation in $C[-1, 1]$	309
Johnson, B. E. Weakly compact homomorphisms between Banach algebras	157
Kalliongis, J. \mathbb{Z}^2 -equivariant hierarchies of irreducible 3-manifolds containing two-sided projective planes	109
Labuschagne, L. E. The perturbation of relatively open operators with reduced index	385
Leary, I. J. The mod- p cohomology rings of some p -groups	63
Leviatan, D., Ditzian, Z. & Jiang, D. Shape-preserving polynomial approximation in $C[-1, 1]$	309
Li, B.-H. & Li, G.-S. Immersions with non-zero normal vector fields	281
Li, G.-S. & Li, B.-H. Immersions with non-zero normal vector fields	281
Llibre, J. & Mackay, R. S. Pseudo-Anosov homeomorphisms on a sphere with four punctures have all periods	539
Livingston, C. & Gilmer, P. Discriminants of Casson–Gordon invariants	127
Ludwig, J. & Bekka, M. E. B. On L^1 -kernels of unitary representations of semisimple Lie groups	343
Mackay, R. S. & Llibre, J. Pseudo-Anosov homeomorphisms on a sphere with four punctures have all periods	539
McClure, J. P. Derivations on a Fréchet convolution algebra associated with a weight	175
Micchelli, C. A. & Buhmann, M. D. On radial basis approximation on periodic grids	317
Moran, W. & Berend, D. The inhomogeneous minimum of binary quadratic forms	7
O’Farrell, A. G. & Perez-Gonzalez, F. Pointwise bounded approximation by polynomials	147
Ohshika, K. Strong convergence of Kleinian groups and Carathéodory convergence of domains of discontinuity	297
Paúl, P. J., Sáez, D. & Florencio, M. Duals of vector-valued Köthe function spaces	165
Perez-Gonzalez, F. & O’Farrell, A. G. Pointwise bounded approximation by polynomials	147
Rahman, Q. I. & Clunie, J. Extension of a theorem of J. H. Grace to transcendental entire functions	565
Raghavan, K. Uniform annihilation of local cohomology and of Koszul homology	487
Raspopović, P. & Heil, W. Dehn fillings of Klein bottle bundles	255
Raynaud, Y. A note on symmetric basic sequences in $L_p(L_q)$	183
Roach, G. F. & Zhang, B. The limiting-amplitude principle for the wave propagation problem with two unbounded media	207
Rong, Y. & Wang, S. The preimages of submanifolds	271
Sáez, C., Florencio, M. & Paúl, P. J. Duals of vector-valued Köthe function spaces	165
Schäffer, S. On pairs of additive forms modulo one	455
Schinzel, A. & Wójcik, J. On a problem in elementary number theory	225
Shiu, P. Cube-full numbers in short intervals	1
Szafraniec, Z. A formula for the number of branches for one-dimensional semianalytic sets	527
Szyszkowicz, B. Asymptotic distributions of weighted pontograms under contiguous alternatives	431
Szyszkowicz, B. Asymptotic distributions of weighted compound Poisson bridges	613
Taylor, S. J. & Barlow, M. T. Local dimension and regular points	361
Tenenbaum, G. & Hall, R. R. On Behrend sequences	467
Todorčević, S. Some compactifications of the integers	247
Van Bon, J. Affine distance-transitive graphs with quadratic forms	495
Veys, W. Reduction modulo p^n of p -adic subanalytic sets	483
Wang, S. & Rong, Y. The preimages of submanifolds	271
Weil, W. & Goodey, P. The determination of convex bodies from the mean of random sections	419

Williams, D. & Baxter, M. Symmetry characterizations of certain distributions, 2: Discounted additive functionals and large deviations	599
Wilson, P. M. H. Elliptic ruled surfaces on Calabi–Yau threefolds	45
Wisliceny, J. & Zerck, R. Generators and relations for metabelian Lie algebras.	449
Wójcik, J. & Schinzel, A. On a problem in elementary number theory	225
Woodward, L. M. & Bolton, J. Minimal surfaces in $\mathbb{C}P^n$ with constant curvature and Kähler angle	287
Wu, J. & Xia, H. Existence of periodic solutions to integro-differential equations of neutral type via limiting equations	403
Xia, H. & Wu, J. Existence of periodic solutions to integro-differential equations of neutral type via limiting equations	403
Zerck, R. & Wisliceny, J. Generators and relations for metabelian Lie algebras.	449
Zhang, B. & Roach, G. F. The limiting amplitude principle for the wave propagation problem with two unbounded media	207
Zhang, I. Applying rewriting methods to special monoids	495

THE PREPARATION OF MANUSCRIPTS

The attention of authors is particularly directed to the following requests.

1. Papers should be typed, double-spaced, on one side of white paper (of which A4, 210 by 297 mm, is a suitable size). The pages must be numbered. Margins of 30 mm should be left at the side, top and bottom of each page. Two clear copies should be sent.

A cover page should give the title, the author's name and institution, with the address at which mail is to be sent.

The title, while brief, must be informative (e.g. *A new proof of the prime-number theorem*, whereas *Some applications of a theorem of G. H. Hardy* would be useless).

The first paragraph or two should form a summary of the main theme of the paper, providing an abstract intelligible to mathematicians.

For a typescript to be accepted for publication, it must accord with the standard requirements of publishers, and be presented in a form in which the author's intentions regarding symbols etc. are clear to a printer (who is not a mathematician).

The following notes are intended to help the author in preparing the typescript. New authors may well enlist the help of senior colleagues, both as to the substance of their work and the details of setting it out correctly and attractively.

2. Notation

Notation should be chosen carefully so that mathematical operations are expressed with all possible neatness, to lighten the task of the compositor and to reduce the chance of error.

For instance n_k (n sub k) is common usage, but avoid if possible using c sub n sub k . Fractions are generally best expressed by a solidus. Complicated exponentials like

$$\exp\{z^2 \sin \theta / (1 + y^2)\}$$

should be shown in this and no other way.

In the manuscript, italics, small capitals and capitals are specified by single, double and triple underlinings. Bold faced type is shown by wavy underlining; wavy will be printed wavy.

It helps if displayed equations or statements which will be quoted later are numbered in order on the right of their line. They can then be referred to by, for example, 'from (7)'.
The author must enable the printer (if necessary by pencilled notes in the margin) to distinguish between similar symbols such as o , O , o , O , 0 ; x , X , \times ; ϕ , Φ , \emptyset ; l , 1 ; ε , \in ; κ , k .

Greek letters can be denoted by Gk in the margin.

If an author wishes to mark the end of the proof of a theorem, the sign \blacksquare may be used.

Footnotes should be avoided.

3. Diagrams

It is extremely helpful if diagrams are drawn in Indian ink on white card, faintly blue or green-lined graph paper, or tracing cloth or paper. *Symbols, legends and captions should be given on a transparent overlay*. Each text figure must be numbered as Figure 1, Figure 2, ... and its intended position clearly indicated in the manuscript:

Figure 1 here

The author's name in pencil must be on all separate sheets of diagrams.

A figure is expensive to reproduce and should be included only when the subject matter demands it, or when it greatly clarifies the exposition.

The Society recognizes that some authors do not have the facilities for producing drawings of a sufficiently high standard to be reproduced directly and it is therefore willing to have such diagrams re-drawn, provided that they are clear.

4. Tables

Tables should be numbered (above the table) and set out on separate sheets. Indicate the position of each in the text as for figures:

Table 3 here

5. References

References should be collected at the end of the paper numbered in alphabetical order of the authors' names. Titles of journals should be abbreviated as in *Mathematical Reviews*. The following examples show the preferred style for references to a paper in a journal, a paper in a proceedings volume, a book and an unpublished dissertation:

- [1] J. F. ADAMS. On the non-existence of elements of Hopf invariant one. *Ann. of Math.* (2) **72** (1960), 20–104.
- [2] M. P. FOURMAN and D. S. SCOTT. Sheaves and logic. In *Applications of Sheaves*, Lecture Notes in Math. vol. 753 (Springer-Verlag, 1979), pp. 302–401.
- [3] P. T. JOHNSTONE. *Stone Spaces*. Cambridge Studies in Advanced Math. no. 3 (Cambridge University Press, 1982).
- [4] F. W. LAWVERE. Functorial semantics of algebraic theories. Ph.D. thesis, Columbia University (1963).

*Mathematical Proceedings of
the Cambridge Philosophical Society*

MPCPCO 112 (Pt 3) 449–637 (1992) 0305–0041 November 1992

CONTENTS

	PAGE
WISLICENY, J. & ZERCK, R. Generators and relations for metabelian Lie algebras	449
SCHÄFFER, S. On pairs of additive forms modulo one	455
HALL, R. R. & TENENBAUM, G. On Behrend sequences	467
VEYS, W. Reduction modulo p^n of p -adic subanalytic sets	483
RAGHAVAN, K. Uniform annihilation of local cohomology and of Koszul homology	487
ZHANG, L. Applying rewriting methods to special monoids	495
VAN BON, J. Affine distance-transitive graphs with quadratic forms	507
BALLESTEROS, J. J. N. & FUSTER, M. C. R. Global bitangency properties of generic closed space curves	519
SZAFRANIEC, Z. A formula for the number of branches for one-dimensional semianalytic sets	527
CABO, A. J. An elementary proof of the Ambartzumian–Pleijel identity	535
LLIBRE, J. & MACKAY, R. S. Pseudo-Anosov homeomorphisms on a sphere with four punctures have all periods	539
CASACUBERTA, C. & CASTELLET, M. Localization methods in the study of the homology of virtually nilpotent groups	551
CLUNIE, J. & RAHMAN, Q. I. Extension of a theorem of J. H. Grace to transcendental entire functions	565
JAMJOM, F. B. The connection between the universal enveloping C^* -algebra and the universal enveloping von Neumann algebra of a JW-algebra	575
GOURDEAU, F. Amenability of Lipschitz algebras	581
DRNOVŠEK, R. Spectral inequalities for compact integral operators on Banach function spaces	589
BAXTER, M. & WILLIAMS, D. Symmetry characterizations of certain distributions. 2: Discounted additive functionals and large deviations	599
SZYSZKOWICZ, B. Asymptotic distributions of weighted compound Poisson bridges	613
PROCEEDINGS OF MEETINGS	631

© The Cambridge Philosophical Society 1992

CAMBRIDGE UNIVERSITY PRESS

THE PITT BUILDING, TRUMPINGTON STREET, CB2 1RP
40 WEST 20TH STREET, NEW YORK, NY 10011-4211, USA
10 STAMFORD ROAD, OAKLEIGH, VICTORIA 3166, AUSTRALIA

Price £27.00 net (USA and Canada US \$61.00)

*Subscription price £78.00 per volume (£156.00 per annum) net post free
(US \$162.00 per volume (US \$324 per annum) in USA and Canada)*

Printed in Great Britain by the University Press, Cambridge