SCHOOL OF MATHEMATICS
LIST OF RESEARCH PUBLICATIONS
2006

School of Mathematics

Category 3 : Published Conference Proceedings

1. Cullender, S.F., Kuo, W-C., Labuschagne, C.C.A. and Watson, B.A.
   "Measure-Free Martingales with Application to Classical Martingales",
   Soft Methods for Integrated Uncertainty Modelling, pp.121-128. Springer-Verlag, 2006.

2. Love, A. and Luyckx, S.
   "Quantitative Relationships Between Magnetic Properties, Microstructure And Composition Of WC-Co", Euro PM2006 Powder Metallurgy Congress & Exhibition, Volume 1 Hard Materials, pp.29-36. European Powder Metallurgy Association, 2006.

Category 4 : DE Accredited Journals

1. Ahmad, A., Bokhari, A.H., Kara, A.H. and Zaman, F.D.
   "Symmetry reductions for 2-dimensional non-linear wave equation",
   Nuovo Cimento Della Societa Italiana Di Fisica B, 121 (6) (2006), 571-578.

2. Archibald, M. and Clément, J.
   "Average depth in a binary search tree with repeated keys",
   Discrete Mathematics and Theoretical Computer Science, AG (2006), 309-320.

3. Archibald, M. and Knopfmacher, A.
   "Samples of geometric random variables with multiplicity constraints",
   Discrete Mathematics and Theoretical Computer Science, AG (2006), 437-440.

4. Archibald, M., Knopfmacher, A. and Prodinger, H.
   "The number of distinct values in a geometrically distributed sample",
   European Journal of Combinatorics, 27 (2006), 1059-1081.

5. Berger, M.
   "Making mathematical meaning: from preconcepts to pseudoconcepts to concepts",
   Pythagoras, 63 (2006), 14-21.

6. Bokhari, A.H., Kara, A.H. and Zaman, F.D.
   "Invariant solutions of certain non-linear evolution type equations with small parameters", Applied Mathematics and Computation, 182 (2006), 1075-1082.

7. Bokhari, A.H., Kara, A.H. and Zaman, F.D.
   "A note on a symmetry analysis and exact solutions of a nonlinear fin equation",
   Applied Mathematics Letters, 19 (2006), 1356-1360.

8. Bokhari, A.H., Kara, A.H., Kashif, A.R. and Zaman, F.D.
   "Noether Symmetries Versus Killing Vectors and Isometries of Spacetimes",
   International Journal of Theoretical Physics, 45 (6) (2006), 1063-1073.

9. Brennan, C. and Knopfmacher, A.
   "The first ascent of size d or more in compositions",
   Discrete Mathematics and Theoretical Computer Science, AG (2006), 261-270.

10. Conradie, W., Goranko, V. and Vakarelov, D.
    "Algorithmic Correspondence and Completeness in Modal Logic. II. Polyadic and Hybrid Extensions of the Algorithm SQEMA", Journal of Logic and Computation, 16 No. 5 (2006), 579-612

11. Cullender, S.F. and Labuschagne, C.C.A.
    "A description of norm-convergent martingales on vector-valued L^p-spaces",
    Journal of Mathematical Analysis and Applications, 323 (2006), 119-130.

12. Demri, S., Finkel, A. Goranko, V. and van Drimmelen, G.
    "Towards a Model-Checker for Counter Systems",
    Lecture Notes in Computer Science, 4218 (2006), 493-507.

13. Driver, K. and Johnston, S.J.
    "An integral representation of some hypergeometric functions",
    Electronic Transactions on Numerical Analysis, 25 (2006), 115-120.

14. Goranko, V. and van Drimmelen, G.
    "Complete axiomatization and decidability of Alternating-time temporal logic",
    Theoretical Computer Science, 353 (2006), 93-117.

15. Goranko, V. and Vakarelov, D.
    "Elementary canonical formulae: extending Sahlqvist's theorem",
    Annals of Pure and Applied Logic, 141 (2006), 180-217.

16. Gryshko, Yulia (Zelenyuk)
    "Symmetric colorings of regular polygons", Ars Combinatoria, 78 (2006), 277-281.

17. Hartney, J.F.T. and Rusznyak, D.S.
    "Right radicals for right distributively generated near-rings",
    Quaestiones Mathematicae, 29 (2006), 285-298.

18. Hayat, T. and Kara, A.H.
    "Couette flow of a third-grade fluid with variable magnetic field",
    Mathematical and Computer Modelling, 43 (2006), 132-137.

19. Hayat, T. and Kara, A.H.
    "A variational analysis of a non-Newtonian flow in a rotating system",
    International Journal of Computational Fluid Dynamics, 20 (3-4) (2006), 157-162.

20. Hockman, M.
    "Continued fractions and the geometric decomposition of modular transformations",
    Quaestiones Mathematicae, 29 (4) (2006), 427-446.

21. Johnpillai, A.G., Kara, A.H. and Mahomed, F.M.
    "A basis of approximate conservation laws for PDEs with a small parameter",
    International Journal of Non-Linear Mechanics, 41 (2006), 830-837.

22. Kara, A.H. and Mahomed, F.M.
    "Noether-Type Symmetries and Conservation Laws Via Partial Lagrangians",
    Nonlinear Dynamics, 45 (2006), 367-383.

23. Labuschagne, C.C.A. and Pinchuck, A.L.
    "The set of fuzzy points of a fuzzy vector lattice is not a vector lattice",
    Fuzzy Sets and Systems, 157 (2006), 2783-2785.

24. Luyckx, S. and Love, A.
    "The dependence of the contiguity of WC on Co content and its independence from WC grain size in WC-Co alloys", International Journal of Refractory Metals & Hard Materials, 24 (2006), 75-79.

25. Naidoo, I.
    "Remarks on some coreflexive subcategories of nearness frames",
    Acta Mathematica Hungarica, 111 (1-2) (2006), 107-117.

26. Naidoo, I.
    "Samuel compactification and uniform coreflection of nearness σ-frames",
    Czechoslovak Mathematical Journal, 56 (131) (2006), 1229-1241.

Category 4A : Non-Accredited Journals

1. Conradie, W., Goranko, V. and Vakarelov, D.
   "Algorithmic Correspondence and Completeness in Modal Logic. I. The Core Algorithm SQEMA",
   Logical Methods in Computer Science, 2 (1:5) (2006), 1-26.

John Knopfmacher Centre
For
Applicable Analysis and Number Theory

Category 3 : Published Conference Proceedings

1. Cullender, S.F., Kuo, W-C., Labuschagne, C.C.A. and Watson, B.A.
   "Measure-Free Martingales with Application to Classical Martingales", Soft Methods for Integrated Uncertainty Modelling, pp.121-128. Springer-Verlag, 2006.

2. Denk, R., Möller, M. and Tretter, C.
   "The Spectrum of the Multiplication Operator Associated with a Family of Operators in a Banach Space", Operator Theory in Krein Spaces and Nonlinear Eigenvalue Problems, pp.103-116. Birkhäuser, 2006.

Category 4 : DE Accredited Journals

1. Andrews, G.E., Knopfmacher, A. and Zimmermann, B.
   "On the number of distinct multinomial coefficients",
   Journal of Number Theory, 118 (2006), 15-30.

2. Archibald, M. and Knopfmacher, A.
   "Samples of geometric random variables with multiplicity constraints",
   Discrete Mathematics and Theoretical Computer Science, AG (2006), 437-440.

3. Archibald, M., Knopfmacher, A. and Prodinger, H.
   "The number of distinct values in a geometrically distributed sample",
   European Journal of Combinatorics, 27 (2006), 1059-1081.

4. Binding, P.A., Browne, P.J. and Watson, B.A.
   "Sturm-Liouville problems with reducible boundary conditions",
   Proceedings of the Edinburgh Mathematical Society, 49 (2006), 593-608.

5. Brennan, C. and Knopfmacher, A.
   "The first ascent of size d or more in compositions",
   Discrete Mathematics and Theoretical Computer Science, AG (2006), 261-270.

6. Christea, L.L. and Prodinger, H
   "Moments of distributions related to digital expansions",
   Journal of Mathematical Analysis and Applications, 315 (2006), 606-625.

7. Cullender, S.F. and Labuschagne, C.C.A.
   "A description of norm-convergent martingales on vector-valued L^p-spaces",
   Journal of Mathematical Analysis and Applications, 323 (2006), 119-130.

8. Driver, K. and Johnston, S.J.
   "An integral representation of some hypergeometric functions",
   Electronic Transactions on Numerical Analysis, 25 (2006), 115-120.

9. Driver, K., Prodinger, H., Schneider, C. and Weideman, J.A.C.
   "Padé approximations to the logarithm II: Identities, recurrences, and symbolic computation",
   Ramanujan Journal, 11 No. 2 (2006), 139-158.

10. Driver, K.A., Prodinger, H., Schneider, C. and Weideman J.A.C.
    "Padé approximations to the logarithm III: Alternative methods and additional results",
    The Ramanujan Journal, 12 (3) (2006), 299-314.

11. Dzik, W., Orlowska, E. and van Alten, C.
    "Relational Representation Theorems for General Lattices with Negations",
    Lecture Notes in Computer Science, 4136 (2006), 162-176.

12. Dzik, W., Orlowska, E. and van Alten, C.
    "Relational Representation Theorems for Lattices with Negations: A Survey",
    Lecture Notes in Computer Science, 4342 (2006), 245-266.

13. Grabner, P.J. and Knopfmacher, A.
    "Analysis of some new partition statistics",
    The Ramanujan Journal, 12 (3) (2006), 439-454.

14. Hassi, S., Möller, M. and de Snoo, H.
    "A class of Nevanlinna functions related to singular Sturm-Liouville problems",
    Proceedings of the American Mathematical Society, 134 (10) (2006), 2885-2893.

15. Heuberger, C. and Prodinger, H.
    "Analysis of alternative digit sets for nonadjacent representations",
    Monatshefte für Mathematik, 147 (3) (2006), 219-248.

16. Knopfmacher, A. and Prodinger, H.
    "The first descent in samples of geometric random variables and permutations",
    Discrete Mathematics and Theoretical Computer Science, 8 (2006), 215-234.

17. Koné, S. and Möller, M.
    "Mixed Order Systems of Ordinary Linear Differential Equations",
    Rocky Mountain Journal of Mathematics, 36 (3) (2006), 957-980.

18. Kuo, W-C., Labuschagne, C.C.A. and Watson, B.A.
    "Convergence of Riesz space martingales",
    Indagationes Mathematicae - New Series, 17 (2006), 271-283.

19. Labuschagne, C.C.A.
    "A Dodds-Fremlin Property for Asplund and Radon-Nikodým Operators",
    Positivity, 10 (2006), 391-407.

20. Labuschagne, C.C.A. and Pinchuck, A.L.
    "The set of fuzzy points of a fuzzy vector lattice is not a vector lattice",
    Fuzzy Sets and Systems, 157 (2006), 2783-2785.

21. Möller, M. and Pivovarchik, V.
    "Spectral Properties of a Fourth Order Differential Equation",
    Zeitschrift für Analysis und ihre Anwendungen, 25 (2006), 341-366.

22. Warlimont, R.
    "Complete compositions of a natural number",
    Quaestiones Mathematicae, 29 (2) (2006), 229-238.

23. Zelenyuk, Yevhen
    "On extremally disconnected topological groups",
    Topology and its Applications, 153 (2006), 2382-2385.

24. Zelenyuk, Yevhen
    "On the Ultrafilter Semigroup of a Topological Group",
    Semigroup Forum, 73 (2006), 301-307.

Category 4A : Non-Accredited Journals

1. van Alten, C.J.
   "On Varieties of Biresiduation Algebras",
   Studia Logica, 83 No. 1-3 (2006), 425-445.

2. Knopfmacher, A. and Mays, M.
   "Dirichlet generating functions and factorization identities",
   Congressus Numerantium, 173 (2005), 117-127.

3. Knopfmacher, A. and Mays, M.
   "Ordered and Unordered Factorizations of Integers",
   The Mathematica Journal, 10 (2006), 72-89.