



# SCHOOL OF MATHEMATICS

## LIST OF RESEARCH PUBLICATIONS

### 2003

1. P.A. Binding, P.J. Browne and B.A. Watson, "Decomposition of spectral asymptotics for Sturm-Liouville equations with a turning point", *Advances in Differential Equations*, **8** (4) (2003), 491-511.
2. A.H. Bokhari, A.R. Kashif and A.H. Kara, "Spherically symmetric static spacetimes and their classification by Ricci inheritance symmetries", *Il Nuovo Cimento (Nuovo Cimento Della Societa Italiana Di Fisica B-General Physics Relativity Astronomy and Mathematical Physics and Methods)*, **118 B**, No. 8 (2003), 803-818.
3. C. Brennan and H. Prodinger, "The pills problem revisited", *Quaestiones Mathematicae*, **26**(4) (2003), 427-439.
4. D. Callan and H. Prodinger, "An Involutionary Matrix of Eigenvectors", *The Fibonacci Quarterly*, **38** (2003), 105-107.
5. A.H. Davison and A.H. Kara, "Potential Symmetries and Associated Conservation Laws with Application to Wave Equations", *Nonlinear Dynamics*, **33** (2003), 369-377.
6. E. Deutsch and H. Prodinger, "A bijection between directed column-convex polyominoes and ordered trees of height at most four", *Theoretical Computer Science*, **307** (2003), 319-325.
7. K. Driver and K. Jordaan, "Asymptotic zero distribution of  ${}_3F_2$  hypergeometric functions", *Indagationes Mathematicae*, **14** (3,4), (2003), 319-327.
8. M. Fairman and M. Möller, "An elliptic boundary problem in a half-space", *Math. Nachr.*, **257** (2003), 16-35.
9. P. Grabner, C. Heuberger and H. Prodinger, "Subblock occurrences in signed digit representations", *Glasgow Mathematical Journal*, **45** (2003), 427-440.
10. P.J. Grabner and A. Knopfmacher, "Arithmetic and Metric Properties of p-Adic Engel Series Expansions", *Publicationes Mathematicae Debrecen*, **63** (2003), 363-377.
11. P. Grabner, A. Knopfmacher and H. Prodinger, "Combinatorics of geometrically distributed random variables: Run statistics", *Theoret. Comp. Sci.*, **297** (2003), 261-270.
12. S. Hassi, M. Möller and H.S.V. de Snoo, "Sturm-Liouville operators and their spectral functions", *J. Math. Anal. Appl.*, **282** (2003), 584-602.
13. T. Hayat, A.H. Kara and E. Momoniat, "Exact Flow of third-grade fluid on porous walls", *Int. Journal of Nonlinear Mechanics*, **38**(10) (2003), 1533-1537.

14. C. Heuberger and H. Prodinger, "Carry Propagation in Signed Digit Representations", *European Journal on Combinatorics*, **24** (2003), 293-320.
15. A.H. Kara, "Potential Symmetry G of Some Perturbed Nonlinear Evolution Related Equations", *Mathematical and Computational Applications*, **8**(1) (2003), 89-94.
16. Q. Kong, M. Möller, H. Wu and A. Zettl, "Indefinite Sturm-Liouville problems", *Proc. Royal Soc. Edinburgh*, **133A** (2003), 639-652.
17. A. Knopfmacher and N. Robbins, "On binary and Fibonacci compositions", *Annales Universitatis Scientiarum Budapestinensis De Rolando Eotvos Nominatae – Sectio Mathematica*, **XXII** (2003), 193-206.
18. D.G. Kubayi, "A note on the 'good' nodes of weighted Lagrange interpolation for non-even weights", *Annales Universitatis Scientiarum Budapestinensis - Secto Mathematica*, **44** (2002), 107-113.
19. D.G. Kubayi, "On the weighted Lebesgue functions for general exponential weights", *Annales Universitatis Scientiarum Budapestinensis - Secto Mathematica*, **44** (2002), 83-105.
20. D.G. Kubayi and D.S. Lubinsky, "Quadrature sums and Lagrange interpolation for general exponential weights", *Journal of Computational and Applied Mathematics*, **151** (2003), 383-414.
21. D.G. Kubayi and H.P. Mashele, "On the difference of orthonormal polynomials", *Quaestiones Mathematicae*, **26** (3) (2003), 347-353.
22. G. Louchard and H. Prodinger, "Random 0-1 rectangular matrices: a probabilistic analysis", *Periodica Mathematica Hungarica*, **47**, Issue 1-2 (2003), 169-193.
23. G. Louchard and H. Prodinger, "Inversions in permutations: A saddle point approach", *Journal of Integer Sequences*, **6**, 2003, article 3.2.8. (19 pages).
24. G. Louchard and H. Prodinger, "Ascending runs of sequences of geometrically distributed random variables: a probabilistic analysis", *Theoretical Computer Science*, **304** (2003), 59-86.
25. R. Mennicken and M. Möller, "Non-self-adjoint boundary eigenvalue problems", North-Holland Mathematics Studies 192, Elsevier, Amsterdam, 2003.
26. P. Paule and H. Prodinger, "Fountains, histograms, and q-identities", *DMTCS*, **6** (2003), 101-106.
27. R.C. Warlimont, "On the zetafunction of an arithmetical semigroup", *Mathematische Zeitschrift*, **245** (2003) 419-434.
28. R.C. Warlimont, "Permutations avoiding consecutive patterns", *Annales Universitatis Scientiarum Budapestinensis - Secto Comp.*, **22** (2003), 373-393.