



SCHOOL OF MATHEMATICS

LIST OF RESEARCH PUBLICATIONS

2001

1. V. Adamjan, H. Langer and M. Möller, “Compact perturbation of definite type spectra of self-adjoint quadratic operator pencils”, *Integral Equations and Operator Theory*, **39** (2001), 127-152.
2. G.E. Andrews and A. Knopfmacher, “An algorithmic approach to discovering and proving q-series identities”, *Algorithmica*, **29** (2001), 34-43.
3. G.E. Andrews, A. Knopfmacher, P. Paule and H. Prodinger, “Q-Engel series expansions and Slater’s identities”, *Quaestiones Mathematicae*, **24** (2001), 403-416.
4. R. Becker, C.G.L. Getz and A. Martinson, “Symmetry and pattern in southern African flat beadwork panels”, *De Arte*, **63** (2001), 26-48.
5. P.A. Binding, P.J. Browne and B.A. Watson, “Spectral isomorphisms between generalized Sturm-Liouville problems”, pp.135-152. In: Gohberg I & Langer H (eds), *Linear Operators and Matrices. Operator Theory: Advances and Applications*, First Edition, Birkhauser Verlag, Basel, Switzerland, 2001.
6. P.A. Binding, P.J. Browne and B.A. Watson, “Transformations between Sturm-Liouville problems with eigenvalue dependent and independent boundary conditions”, *Bulletin of the London Mathematical Society*, **33** (2001), 749-757.
7. K.A. Driver and P. Duren, “Trajectories of the zeros of hypergeometric polynomials $F(-n, b; 2b; z)$ for $b < -1/2$ ”, *Constructive Approximation*, **17** (2001), 169-179.
8. K.A. Driver and P. Duren, “Zeros of ultraspherical polynomials and the Hilbert-Klein formulas”, *Journal of Computational and Applied Mathematics*, **135** (2001), 293-301.
9. K.A. Driver and A.D. Love, “Products of hypergeometric functions and the zeros of ${}_4F_3$ polynomials”, *Numerical Algorithms*, **26** (2001), 1-9.
10. K.A. Driver and A.D. Love, “Zeros of ${}_3F_2$ hypergeometric polynomials”, *J. Computational and Applied Mathematics*, **131** (2001), 243-251.
11. K.A. Driver and M. Möller, “Zeros of the hypergeometric polynomials $F(-n, b; -2n; z)$ ”, *Journal of Approximation Theory*, **110** (2001), 74-87.

- 12.M. Faierman, "A transmission problem involving a parameter and a weight", *Mathematische Nachrichten*, **229** (2001), 73-89.
- 13.L. Golinskii, D.S. Lubinsky and P. Nevai, "Large sieve estimates on arcs of a circle", *Journal of Number Theory*, **91** (2001), 206-229.
- 14.J.F.T. Hartney and S.S. Mavhungu, "S -primitive ideals in matrix near-rings", Near-Rings and Near-Fields, Stellenbosch, 9-16 July 1997, pp.103-107, 2001.
- 15.C. Heuberger and H. Prodinger, "On minimal expansions in redundant number systems: Algorithms and quantitative analysis", *Computing*, **66** (2001), 377-393.
- 16.M. Hockman, "Learning and teaching geometry in a multi-perspective environment", *Quaestiones Mathematicae*, **24** (2001), 95-103.
- 17.A.G. Johnpillai and A.H. Kara, "A variational formulation of approximate symmetries and conservation laws", *Int. Journal of Theoretical Physics*, **40**(8) (2001), 1501-1509.
- 18.A.H. Kara, "Potential symmetry generators of some perturbed wave equations", *Proceedings of the Colloquium on Lie Theory*, Universidad de Vigo, Spain, July 2000.
- 19.A.H. Kara and C.M. Khalique, "Conservation laws and associated symmetries for some classes of soil water motion equations", *Int. Journal of Nonlinear Mechanics*, **36** (7) (2001), 1041-1045.
- 20.A. Knopfmacher and H. Prodinger, "Combinatorics of geometrically distributed random variables: Value and position of the rth left-to-right maximum", *Discrete Mathematics*, **226** (2001), 255-267.
- 21.A. Knopfmacher and N. Robbins, "Some arithmetic properties of Eulerian numbers", *Journal of Combinatorial Mathematics and Combinatorial Computing*, **36** (2001), 31-42.
- 22.J.P.L. Knopfmacher, "Recent developments and applications of abstract and analytic number theory", *Quaestiones Mathematicae*, **24** (2001), 291-307.
- 23.J.P.L. Knopfmacher and W-B. Zhang, *Number Theory Arising from Finite Fields: Analytic and Probabilistic Theory*. Marcel Dekker, Inc., New York, U.S.A., First Edition, 404 pp., 2001.
- 24.D.G. Kubayi, "Bounds for weighted Lebesgue functions for exponential weights", *Journal of Computational and Applied Mathematics*, **133** (2001), 429-443.
- 25.A.L. Levin and D.S. Lubinsky, "Green equilibrium measures and representations of an external field", *Journal of Approximation Theory*, **113** (2001), 298-323.

- 26.E. Levin and D.S. Lubinsky, *Orthogonal Polynomials for Exponential Weights*. Springer, New York, U.S.A., First Edition, 484 pp., 2001.
- 27.L. Lorentzen and D.S. Lubinsky, “Convergence versus correspondence for sequences of rational functions”, *Indagationes Mathematicae*, **12** (2001), 213-219.
- 28.D.S. Lubinsky, “ L_p Markov-Bernstein inequalities on arcs of the circle” *Journal of Approximation Theory*, **108** (2001), 1-17.
- 29.D.S. Lubinsky, “Sharp estimates for the maximum over minimum modulus of rational functions”, *Proceedings of the American Mathematical Society*, **129**(12) (2001), 3519-3529.
- 30.D.S. Lubinsky, “Diagonal Padé sequences for functions meromorphic in the unit ball approximate well near zero”, Int. Symposium on Trends in Approximation Theory, Vanderbilt University, Nashville, *Trends in Approximation Theory*, 17-20 May 2000, pp. 297-305, 2001.
- 31.D.S. Lubinsky, “John Knopfmacher – A mathematical biography”, *Quaestiones Mathematicae*, **24**(3) (2001), 261-262.
- 32.C. Martinez, A. Panholzer and H. Prodinger, “Partial match queries in relaxed multi-dimensional search trees”, *Algorithmica*, **29**(1/2) (2001), 181-204.
- 33.A. Panholzer and H. Prodinger, “Kirkman’s hypothesis revisited”, *Integers*, **1** (2001), 1-3.
- 34.H. Prodinger, “A q-analogue of the path length of binary search trees”, *Algorithmica*, **31**(3) (2001), 433-441.
- 35.H. Prodinger, “Some applications of the q-Rice formula”, *Random Structures & Algorithms*, **19**(3&4)(2001), 552-557.
- 36.H. Prodinger, “Words, dyck paths, trees and bijections” pp. 369-379. In: Ito M, Paun G & Yu S (eds), *Words, Semigroups & Transductions*, First Edition, World Scientific, Singapore, 2001.
- 37.H. Prodinger, “Words, permutations, and representations of numbers”, 5th Int. Conference, DLT 2001, Wien, Austria, *Developments in Language Theory*, 16-21 July, pp. 93-112, 2001.
- 38.H. Prodinger, “On a functional-difference equation of Runyon, Morrison, Carlitz and Riordan”, *Séminaire Lotharingien de Combinatoire*, **46** (2001), 1-4.
- 39.H. Prodinger, “Combinatorics of geometrically distributed random variables: Inversions and a parameter of Knuth”, *Annals of Combinatorics*, **5** (2001), 241-250.

- 40.J.N. Ridley, "Fourth order linear recurrences satisfied by Wythoff pairs", *The Ramanujan Journal*, **5** (2001), 159-165.
- 41.R.C. Warlimont, "On the iterates of Euler's function", *Archiv der Mathematik*, **76** (2001), 345-349.
- 42.R.C. Warlimont, "About the radius of convergence of the zeta function of an additive arithmetical semigroup", *Quaestiones Mathematicae*, **24** (2001), 355-362.
- 43.R.C. Warlimont, "About the abscissa of convergence of the zeta function of a multiplicative arithmetical semigroup", *Quaestiones Mathematicae*, **24** (2001), 363-371.
- 44.R.C. Warlimont, "John Knopfmacher and additive arithmetical semigroups", *Quaestiones Mathematicae*, **24**(3) (2001), 269-272.