

# NEWSLETTER

Department of Mathematics & Statistics

Friday, 26<sup>th</sup> April 2002

**This Week:** New Secretary  
Message of Thanks  
Published and Accepted Papers  
Puzzle Corner

## NEW SECRETARY

A warm welcome to Molina Thomson who starts with us on Monday 29<sup>th</sup> April.

## MESSAGE OF THANKS

Thanks again for providing references for me for my applications to US Universities. I received three offers - and eventually chose the University of Minnesota, as it appears to have the most depth in mathematical economics. They offer a course in mathematical economics in the first year of the program, and they were the only university to allow me to do papers in the maths department as part of the program. The other offers were from Michigan and UCLA, but the latter didn't offer any funding, so I had to turn that one down.

David Young

## PUBLISHED AND ACCEPTED PAPERS

Price, C.J. and Coope, I.D. Frame based ray search algorithms in unconstrained optimisation. Journal of Optimization Theory and Applications, v116, 2, February 2003. (Accepted).

Price, C.J. and Coope, I.D. Positive bases in numerical optimisation. Computational Optimization and Applications, v21, 2002.

Steel, M., Meir, A., and Moon, J.W. A Limiting Theorem on 2-coloured Trivalent Trees, Congressus Numerantium 150 (2001)43-63.

Wake, G.C., Van-Brunt, B., and Marshall, J.C. Natural boundaries for solutions to a certain class of functional differential equations, J. Math Anal. and Appl. v268, pp 157-170, 2002.

Watson, N.A. Mean values and associated measures of delta-subharmonic functions. Math. Bohem. v127,2002:83-102.

## PUZZLE CORNER

Two problems this week, to herald the onset of 5 solid weeks without a single break, and more. Time to do some extra work!

- 1) In spite of what you may have heard, not every nontrivial quintic is insoluble. Solve this one in radicals:

$$2x^5 - 10x^3 + 10x - 5 = 0$$

- 2) Show that among any seven reals you can always choose two,  $x, y$  such that

$$0 < \frac{x-y}{1+xy} < \frac{1}{\sqrt{3}}$$