

NEWSLETTER

Department of Mathematics & Statistics

Issue No. 22/03

Friday, 19 December 2003

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PAPER PUBLISHED

1. 'Apartness spaces as a foundation for constructive topology' (with Luminita Vi \hat{t} a, Ann. Pure Appl. Logic. 119(1--3), 61--83, 2003.
2. 'Locating the range of an operator with an adjoint' (with Hajime Ishihara and Bas Spitters), Proc. Koninklijke Nederlandse Akad. Wetenschappen (Indag. Math.) N.S., 11(3), 1--8, 2003.
3. 'Strong versus uniform continuity: a constructive round' (with Peter Schuster and Luminita Vi \hat{t} a, Quaest. Math. 26, 171--190, 2003.
4. 'A constructive theory of point--set nearness' (with Luminita Vi \hat{t} a, Topology in Computer Science: Constructivity; Asymmetry and Partiality; Digitization (Proc. Dagstuhl Seminar 00231, 4-9 June 2000; R. Kopperman, M. Smyth, D. Spreen, eds.), Theoretical Computer Science 305 (1--3), 473--489, 2003.
5. 'A proof--technique in uniform space theory' (with Luminita Vi \hat{t} a, J. Symbolic Logic 68(3), 795-802, 2003.
6. 'Cauchy nets in uniform apartness spaces' (with Luminita Vi \hat{t} a, Revue Romaine 48(5--6), 467--474, 2003.
7. 'Strong continuity implies uniform continuity---the uniform space case' (with Luminita Vi \hat{t} a, London Math. Soc. J. Computing & Math. 6, 326--334, 2003.
8. 'Ishihara's proof technique in constructive analysis' (with Dirk van Dalen and Hajime

Ishihara), Proc. Koninklijke Nederlandse Akad. Wetenschappen (Indag. Math.) N.S., 14(2), 163--168, 2003.

Douglas Bridges

PAPER APPEARED

"Frames and grids in unconstrained and linearly constrained optimization: a non smooth approach" in SIAM Journal on Optimization (C J Price and I D Coope).

Chris Price

PUBLICATIONS ACCEPTED

"Direct search methods for nonlinearly constrained optimization using filters and frames" in Engineering Optimization: special issue (J E Dennis Jr, C J Price, and I D Coope).

Chris Price

D. Byatt, I. D. Coope and C. J. Price. Conjugate grids for unconstrained optimisation. Computational Optimization and Applications.

D. Byatt, I. D. Coope and C. J. Price. Effects of limited precision on the BFGS quasi-Newton algorithm. CTAC 2003 conference proceedings.

D. Byatt, M. L. Dalrymple and R. M. Turner. Searching for primes in the digits of pi. Computers and Mathematics with Applications.

David Byatt

D. Bridges and G. Popa, 'The Crossing Boundary Theorem', Quarterly Journal of Mathematics;

Gabriela Popa

PAPERS SUBMITTED

D. Bridges and G. Popa, 'Approximating Equilibria and Pareto Optima', Journal of Economic Theory.

Gabriela Popa

CONGRATULATIONS CORNER

To graduates at this week's graduation ceremony:

Drs Robert Ware and Alistair Smith were capped with their PhDs;

Julie Daly (Executive/Admin assistant) received her Graduate Diploma in Management;

+ many more across the various Faculties.



From left to right: Liz, Peter and David



From left to right: Frank, Alistair, Rob, Julie and Graeme

To Beverley Horn on the completion and submission of her PhD thesis this week. It is entitled "Mathematical Optimisation of Diver Ascent Profiles with Constant Risk of Decompression Illness " This work was supported by the Defence Research Agency (DERA- now QinetiQ), UK.

To Dr Chris Hann who feature in last weeks Chronicle, p.11 and takes up his postdoctoral fellowship in January researching in the diagnosis of heart dysfunction. Congratulations Chris. (Both Chris and Beverley will be based in the Department of Mechanical Engineering. from 2004 Beverley after obtaining her PhD.)

Graeme Wake

DEPARTMENTAL VISITORS

Current Visitors	Name of Organisation	From	To	Room No	Ext No
Peter Lockhart, Dr	Massey University	6-Oct-02	20-Oct-04	616	8876

Richard Laugesen, Prof	University of Illinois	14-Jul-03	31-Mar-04	710	7694
Gyou-Bong Lee, Prof	Paichai University, Korea	15-Jul-03	14-Jul-04	502	7663
Adrian Iordache, Mr	University of Illinois	1-Aug-03	31-Apr-04	522	7695
Visitors due to arrive	Name of Organisation	From	To	Room No	Ext No
Robert Raphael, Prof	McGill University	10-Jan-04	28-Feb-04	602	7687
Charles Vinsonhaler, Prof	University of Connecticut, USA	13-Jan-04	13-Feb-04	501	8376
Kostial Beidar, Prof.	National Cheng-Kung University Tainan, Taiwan	15-Jan-04	15-Feb-04	501	8376
Mary Christman, Assoc. Prof.	University of Maryland	28-Jan-04	24-Feb-04	703	7427

MATHEMATICS-IN-INDUSTRY STUDY GROUP



MATHEMATICS-IN-INDUSTRY STUDY GROUP

26th – 30th January 2004
At the University of Auckland.

First Circular and Registration form available on the website, plus list of problems to be presented.

**Please complete registration before Friday
19th December**

Organised by:

The Centre for Mathematics in Industry,
Massey University at Albany.

Conference Web address:

<http://misg2004.massey.ac.nz>