

# NEWSLETTER

## Department of Mathematics & Statistics

Issue No. 7/04

Friday, 23rd April 2004

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### DEPARTMENTAL RESEARCH FUND

Congratulations to Jennifer Brown who has been awarded a grant from the Departmental Research Fund to present a paper at the International Biometrics Conference in Cairns, July 11-16 and to attend the NZ Statistical Association Annual Conference and AGM in Wellington, July 1.

*Ian Coope*

Shaw, G.M., Chase, J.G., Lee, D.S., Hooper, E., Rudge, A.D. and Agogue, F., "*Emerging methods for sedation and agitation management in critical illness*," Invited paper.

Shaw, G.M., Chase, J.G., Lee, D.S., Bloomfield, M., Doran, C.V., and Lin, J. (2004), "*How high are blood glucose levels in intensive care?*" Winner of Best Medical Paper Award.

Shaw, G.M., Chase, J.G., Lee, D.S., Wake, G.C., Lin, J., Browne, P., Robertson, M. and Doran, C.V. (2004), "*Targeted glucose control in critically ill patients*," Runner-up for Best Medical Paper Award.

*Dominic Lee*

### PAPERS SUBMITTED

"*Phylogenetic super-networks from partial trees*" Daniel Huson, Tobias DeZulian, Tobias Klopper and Mike Steel. Workshop on Algorithms in Bioinformatics (WABI 2004).

"*How much do evolved characters tell us about the tree that generated them?*" Elchanan Mossel and Mike Steel (Book chapter, Oxford University Press)

*Mike Steel*

### SUCCESSFUL PHD DEFENCE

Congratulations to Bernie Tsang who successfully defended his PhD thesis in Computational and Applied Mathematics on Thursday 22nd April. His thesis was entitled: "Modelling of the Mechanisms Governing Crimp in Wool".

This project was funded by the Wool Charitable Trust over the period 2000-3. Bernie will be providing the amended hard-bound copies

### PAPERS PRESENTED

The following papers were presented by Dr Geoff Shaw at the Australian-New Zealand Intensive Care Society Annual Scientific Meeting in Wellington on 26 March 2004:

within the next couple of weeks. Bernie is now living back in Auckland. Congratulations Bernie.

*Graeme Wake*

## **MATHEMATICS-IN-INDUSTRY STUDY GROUP 2004**

A preprint of the publication of the Equation-Free Summaries from MISG2004 is available for reading in the Mail Room. Printed copies available from the Centre for Mathematics in Industry free from the Administrator Nikki Luke: n.luke@massey.ac.nz. Likewise the Videos of the final plenary presentations from last January are available at \$40 +GST (4 hours of viewing) from Nikki. Both are excellent resources for teaching in Engineering, Applied and Industrial Mathematics and are being used at an IM workshop in Thailand next month.

*Graeme Wake*

## **OPENING THE CENTRE FOR BIOENGINEERING**

On December 17, 2003 the UC Research Committee approved an application, on behalf of the Centre for Healthcare Technology NZ (CHCTnz), for an upgrade of CHCTnz to a Level 2 Research Centre, with change of name to the Centre for Bioengineering.

It is now timely to announce that Professor Sharp will officially open the Centre for Bioengineering on Tuesday 4th May at 5pm. The venue will be the Centre, located in the Mechanical Engineering Lab wing, Room C212.

The Centre for Bioengineering has a wider biological and health focus with representation from the School of Medicine and Health Sciences, the UC Wood Technology Research Centre, the School of Biological Sciences and Department of Chemical and Process Engineering; with the math, medical physics, statistics, computing and engineering interests of CHCTnz as a core sub-group.

If you are interested in joining the Centre for Bioengineering and coming to the opening please contact Prof Tim David, Director, Mechanical Engineering Department. We believe this promises a significant way forward in increasing UC's research expertise and profile and adding further impetus to UC/SMHS/Lincoln University health initiatives.

*Irene Hudson*

## **NEWS OF THE DEATH OF A FORMER ERSKINE FELLOW**

Professor Heinz Bauer was an Erskine Fellow in this Department in 1991. I have just learned that he passed away in 2002. Walter de Gruyter are publishing a Selecta of his works, and describe him in the following way:

Heinz Bauer (1928-2002) was one of the prominent figures in Convex Analysis and Potential Theory in the second half of the 20th century. The Bauer minimum principle and Bauer's work on Silov's boundary and the Dirichlet problem are milestones in convex analysis. Axiomatic potential theory owes him what are now known as Bauer harmonic spaces.

*Neil Watson*

## DEPARTMENTAL VISITORS

<b>Current Visitors</b>	<b>Name of Organisation</b>	<b>From</b>	<b>To</b>	<b>Room No</b>	<b>Ext No</b>
Peter <b>Lockhart</b> , Dr	<b>Massey University</b>	<b>6-Oct-02</b>	<b>20-Oct-04</b>	<b>616</b>	<b>8876</b>
Gyou-Bong <b>Lee</b> , Prof	<b>Paichai University, Korea</b>	<b>15-Jul-03</b>	<b>14-Jul-04</b>	<b>502</b>	<b>7663</b>
Andreas <b>Dress</b> , Prof (Erskine Fellow)	<b>Universitat Bielefeld</b>	<b>1-Mar094</b>	<b>25-Apr-04</b>	<b>616</b>	<b>8876</b>
Carl <b>Masak</b> , Mr	<b>Uppsala University, Sweden</b>	<b>24-Mar-04</b>	<b>13-May-04</b>	<b>501</b>	<b>8376</b>
<b>Visitors due to arrive</b>	<b>Name of Organisation</b>	<b>From</b>	<b>To</b>	<b>Room No</b>	<b>Ext No</b>
V S <b>Sunder</b> , Prof	<b>Institute of Mathematical Sciences, Chennai, India</b>	<b>25-Apr-04</b>	<b>30-Apr-04</b>	<b>710</b>	<b>7694</b>
Ms. Lulu <b>Ren</b>	<b>University of Pittsburg, USA</b>	<b>1-May-04</b>	<b>30-May-04</b>	<b>602</b>	<b>8687</b>
Ms. Melissa <b>Ziegler</b>	<b>University of Pittsburg, USA</b>	<b>1-May-04</b>	<b>30-May-04</b>	<b>602</b>	<b>8687</b>
Ms. Gabriela <b>Czannar</b>	<b>University of Pittsburg, USA</b>	<b>1-May-04</b>	<b>30-May-04</b>	<b>602</b>	<b>8687</b>
Willy <b>Hereman</b> , Prof	<b>Colorado School of Mines</b>	<b>15-Jun-04</b>	<b>20-Aug-04</b>	<b>710</b>	<b>7694</b>