

NEWSLETTER

Department of Mathematics & Statistics

Issue No. 5/04

Friday, 26 March 2004

THIS WEEK:

PAPER PUBLISHED	1
PAPER ACCEPTED	1
ALEXANDER VON HUMBOLDT FELLOWSHIP	1
DEPARTMENTAL RESEARCH FUND	1
CONGRATULATIONS	1
DISCOVERY DAY	2
DEPARTMENTAL VISITORS	2

PAPER PUBLISHED

W. Hordijk, and M. Steel. Detecting autocatalytic, self-sustaining sets in chemical reaction systems. *Journal of Theoretical Biology* 227(4): 451-461, 2004.

Mike Steel

Basse B, Wake, GC, Wall DJN, & van-Brunt B. "On a cell-growth model for plankton" *Mathematical Medicine and Biology: A Journal of the IMA*; 21, 2004, pp 49-61.

Graeme Wake

PAPER ACCEPTED

V. Moulton and M. Steel. 'Peeling' phylogenetic oranges. *Advances in Applied Mathematics*.

Mike Steel

VON HUMBOLDT FELLOWSHIP

Dr Britta Basse has won for 2004 a prestigious Alexander von Humboldt Fellowship to continue her research in Mathematics in Medicine (Cancer modelling) in Leipzig, Germany: The Humboldt Research Fellowships http://www.avh.de/en/programme/stip_au/stp.htm are for highly qualified scholars not resident in Germany, aged up to 40 and holding a doctorate, enabling them to undertake periods of research in Germany (500 fellowships per annum). Britta completed her Masters in Mathematics in the University of Auckland in 1992 and her PhD in Applied Mathematics from the University of Canterbury in 2000. From 1992-5 she was a tutor in mathematics in the University of Auckland and from 2000-3 she was a postdoctoral fellow in the University of Canterbury. Key papers on her work have just appeared in the **Journal of Mathematical Biology** and **Mathematical Medicine and Biology: A Journal of the IMA.**

Graeme Wake

CONGRATULATIONS

Congratulations to Douglas Bridges for being elected as a Corresponding Fellow of the Royal Society of Edinburgh.

David Wall

DEPARTMENTAL RESEARCH FUND

Congratulations to Dominic Lee and Carl Scarrott who have been awarded grants from the Departmental Research Fund to attend the workshop on "Structure and Uncertainty" at the University of Waikato, April 1. Congratulations also to Alex James who has been allocated funds to present a paper at the "3rd Conference on Deterministic Models of Biological Interactions" in Trento, Italy, 21-25 June.

Ian Coope

DISCOVERY DAY

Last Thursday was University Discovery Day. Of the hundred or so high school students who expressed interest in science, 3 were keen on math. So the department is going for quality. They got personalized tours of the department, the Derrick Breach room and math garden. A big thank you to Alex James, John Hannah, Bill Taylor and Carla Meurk for their help.

Bill Baritomba

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	16-Apr-04	710	7694
Gyou-Bong Lee, Prof	Paichai University, Korea	15-Jul-03	14-Jul-04	502	7663
Joe Perry, Prof (Erskine Visitor)	University of Maryland	2-Feb-04	2-Apr-04	502	7663
Johan Kahrstrom, Dr	Uppsala University, Sweden	23-Feb-04	28-Mar-04	501	8376
Vincent Moulton, Prof	Uppsala University, Sweden	23-Feb-04	28-Mar-04	501	8376
Andreas Dress, Prof (Erskine Fellow)	Universitat Bielefeld, Germany	1-Mar-04	25-Apr-04	616	8876
Michael Burns, Dr	University of California, Berkeley	15-Mar-04	19-Mar-04	413	8369
Carl Masak, Mr	Uppsala University, Sweden	24-Mar-04	13-May-04	501	8376
Visitors due to arrive	Name of Organisation	From	To	Room No	Ext No
Willy Hereman, Prof	Colorado School of Mines	15-Jun-04	20-Aug-04	710	7694

PROBLEM CORNER

For a subset A of the natural numbers, define the Cesaro density to be

$$\lim_{n \rightarrow \infty} \left(\frac{|A \cap \{1, 2, 3, \dots, n\}|}{n} \right)$$

Find sets A and B such that this limit exists for each, but not for their intersection.

Bill Taylor