This Newsletter

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CHRISTMAS MESSAGE from HOD

I would like to wish everyone a merry Christmas and happy New Year. I hope you all have a good break and come back fresh and enthusiastic in 2005.

David Wall

PAPERS ACCEPTED

M. Bate, B. Martin, G. Rohrle. A geometric approach to complete reducibility. *Inventiones Mathematicae*.

M. Liebeck, B Martin, A. Shalev. On a zeta function associated with the maximal subgroups of finite simple groups. *Duke Mathematical Journal*.

R.S.Laugesen & N.A.Watson, Another way to say subsolution: The maximum principle and sums of Green functions. *Mathematica Scandinavica*.

PAPER SUBMITTED

M. Steel, Should phylogenetic models be trying to `fit an elephant'? *Trends in Genetics*

CONGRATULATIONS – Thesis Accepted

Congratulations to Mihaela Baroni for completing her PhD. Her thesis is titled “Hybrid Phylogenies: A Graph-Based Approach to Represent Reticulate Evolution”.

Greatness lies not only in being strong but in the right use of strength.

*Henry Ward Beecher, 1813 - 1887*
CONGRATULATIONS

Norhayati completes her PhD.

On the 14th December the examiners unanimously recommended that Norhayati Hamzah be recommended for her PhD in Computational and Applied Mathematics subject to making the changes recommended satisfactorily. Her thesis was entitled "A Bifurcation Analysis of a Multi-Compartment Phyto-plankton, Zooplankton, Nutrient Interaction". Yati is now a lecturer in Mathematics at her University of Brunei Darussalam, and resumes this role next week.

Congratulations and well-done from us all.

A big thank you is due to Dr Alex Ross, previously of NIWA, soon to return to his native Scotland, for his strong input into the co-supervision of this work.

Graeme Wake

DEPARTMENT RESEARCH FUNDS

Congratulations also to the following who have been awarded grants towards conference expenses:

1. To attend the NZMS Dunedin Colloquium held in early December:
   Easaw Chacko
   Arno Berger
   Ben Martin
   Alex James

2. Charles Semple - NZIMA Conference in Combinatorics and its Applications being held in Taupo in this month.

LIBRARY NEWS

As well as via our current access through Project Euclid (http://projecteuclid.org), journals from the Institute of Mathematical Statistics will soon also be available through the ArXiv Open Access project (http://www.arxiv.org).

To read more on this bold decision of the IMS go to http://www.imstat.org/publications/arxiv.html and/or http://www.imstat.org/publications/arxiv.html

The Physical Sciences Library is running a survey on their display of Recently Arrived Journals and would very much like to know your views.

If you have not already, please take a minute to fill out their 60 second survey http://library.canterbury.ac.nz/forms/jnl_survey_psl.shtml

Adam Cath
GRADUATION PHOTOS

Last Wednesday was a very unusual day for the Department, in that we had five students graduating with PhD degrees. (Can any current member of staff recall such a number of PhD graduands from the Department at one ceremony?)

Our congratulations go to Marian and Mihaela Baroni (perhaps our first husband-and-wife team to graduate with PhDs at the same time), Michelle Dalrymple, Robin Turner and Bernie Tsang for making the day such a special occasion for us all.

Our PhD graduates

Getting prepared for the big walk
Bernie, Michelle and Robin

Dr, Dr, Dr, Dr

Dr duo and matching others

Hungry Technicians

Graeme and Tsang family

Happy Baroni Family
PROBLEM CORNER

Q A rabbit is in a box with two holes in the lid. After 1 second after being put in, it pops its head out of one hole. After another 1/2 second, it pops its head out of the other hole. After another 1/4 second, it again pops its head out of the first hole. This pattern continues. After what time will the rabbit be popping its head out of both holes at the same time?

Answer at end of Newsletter

Question 2.
For a subset A of the natural numbers recall the Cesaro density is \( \lim_{n \to \infty} \frac{|A \cap \{1,2,3,\ldots,n\}|}{n} \)

And find sets A and B such that this limit exists for both, but not for \( A \cap B \).

Bill Taylor

DEPARTMENT VISITORS

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Problem Corner Answer
Theoretically, the answer is 2 seconds, if you really want to split hares!