

Newsletter

Mathematics & Statistics

ISSUE 2/06

MARCH 2006

THIS ISSUE

1. Neil Watson
2. Conferences
3. Graeme Wake
4. Papers Accepted / Published
5. Departmental Scholarships 2006
6. Post-Graduate & Honours Students 2006
7. New Post-Doctoral Fellow
8. Summer Studentships 2005/6
9. Problem Corner
10. Seminar Notice
11. Departmental Visitors

Neil Watson is in hospital after taking ill on campus last Monday. Our thoughts are with him and his family at this difficult time.



"Kaikoura 06" Participants - bearing up under the strain!

CONFERENCES

So great was the demand to attend *Kaikoura 06*, last month's 10th annual New Zealand phylogenetics meeting, that registration had to be closed off 5 months in advance. Fifty participants from 8 countries met at the University's marine field station, which was full to capacity. In addition to talks, the participants enjoyed various excursions and an outdoor dinner at the Kaikoura winery. *Kaikoura 06* was organized by **Mike Steel** and **Charles Semple**, with help from **Dietrich Radel**, and funding was provided by a Marsden Fund grant.

CONFERENCES (contin.)

Ben Martin spent February visiting Professor Gerhard Roehrl at the University of Southampton. With Dr Michael Bate (Oxford) and Dr Rudolf Tange (Southampton), they are working on a project involving subgroups of reductive algebraic groups. Ben gave talks at Imperial College London, the University of Kent, the University of Southampton, and Royal Holloway College London.

Rick Beatson will be attending the *Curve and Surfaces 6* conference in Avignon, France in June/July.

Carl Scarrott will be presenting a paper entitled *Extreme Value Modelling for Reactor Risk* at the International Workshop of Statistical Modelling 2006, to be held at the National University of Ireland Galway from 3 – 7 July.

Jennifer Brown has been awarded a teaching development grant to attend the International Conference on Teaching Statistics in Brazil, in July 2006.

Hannes Diener will be giving a talk at the Constructive Mathematics Workshop in Frauenwoerth, Germany, from 19-23 June.

CONGRATULATIONS TO FORMER DEPARTMENT MEMBER

Professor Peter Taylor, ANZIAM President, announcing the award of the ANZIAM medal to Professor Graeme Wake

At the annual ANZIAM (Australian and New Zealand Industrial and Applied Mathematics) conference in Australia last month, Graeme Wake, Professor of Industrial Mathematics at Massey University and Adjunct Professor at Canterbury University, was awarded the ANZIAM Medal for 2006. This medal, first awarded in 1995, is given on the basis of research achievements; activities enhancing applied or industrial mathematics, or both; and contributions to ANZIAM. It is the premier award that ANZIAM bestows and is usually awarded every 2 years. Professor Wake is the first NZ-based person to receive this award.

PAPERS ACCEPTED

A Dress & M Steel: *Phylogenetic diversity over an Abelian group* (Annals of Combinatorics)

K Hartmann & M Steel: *Maximising phylogenetic diversity in biodiversity conservation: greedy solutions to the Noah's ark problem* (Systematic Biology)

PAPER PUBLISHED

M Baroni, C Semple & M Steel: *Hybrids in Real Time* (Systematic Biology 55 (1): 46-56, 2006)

DEPARTMENTAL SCHOLARSHIPS 2006

Congratulations to the following students who had accepted Departmental Scholarships for 2006 by the time this newsletter went to print:

400-level: Kathryn Baldwin, Ryoko Ito, Robert Knegjens, Daniel Lond, Blair Robertson, James Roscoe, Michael Snook & Samuel Whitehead.

300-level: Timothy Candy, Mahana Clutha, Qian Hou, Hee Sook Lee, Chang Li, Jing Luo & Gloria Teng.

200-level: Shaodin Lin & Johannes Antarikso Pagwiwoko.

POST-GRADUATE & HONOURS STUDENTS 2006

PhD: Ronald Begg, Hannes Diener, Marieke Fischer, Kyoko Fukuda, Zhaojing Gong, Scott Graybill, Klaas Hartman, Peter Humphries, In Kang, Michael Langton and Issarest Weeraprajak.

Masters: Andrew Richens and Qinglin Hu

Honours: Kathryn Baldwin, Jason Bentley, Laurent Berrayah, Michael Hayward, Lisa Henley, Ryoko Ito, Daniel Lond, Blair Robertson, James Roscoe, Michael Snook and Hui Yao.

NEW POST-DOCTORAL FELLOW

Josef Berger, who you may remember from his visit here a year ago, has recently arrived from the Mathematisches Institut of the University of Munich, Germany. He is taking up a Marsden-funded post-doctoral fellowship for research with **Douglas Bridges** on reverse constructive mathematics. He is based in Room 720.

SUMMER STUDENTSHIPS 2005/6

Six students successfully completed their summer studentships this year. The standard was very high and it appears from many I have talked to that all enjoyed the experience very much. The students involved, and their topics, were as follows:

Maarten Jordens (supervisor Douglas Bridges): *A Constructive Analysis of the Vitali Covering Theorem*

Jason Bentley (supervisors Jennifer Brown, Hazel Chapman, Marco Reale): *Casual Models in Nigerian Montane Forest Phenology.*

Thi Phoung Tra Dinh (supervisor Arno Berger): *The Dynamics of β - Transformations*

Ryoko Ito (supervisors Alex James & Roger Dungan): *Modelling Honeydew Beetles*

James Roscoe (supervisor Dominic Lee): *Developing a Hidden Markov Model for Assessing the Health of Premature Babies*

Alethea Rea (supervisors Marco Reale & Carl Scarrott): *Spillover Effects Between Japan and the US*

Charles Semple

PROBLEM CORNER

Is it possible to take four consecutive odd primes, travel a distance north by the first one, east by the second, south by the third, and west by the fourth, so that the distance between your starting and finishing points is an integer? (Using Maple is cheating!)

Bill Taylor

SEMINAR

Thursday 16 March in the Gordon Petersen Room (MSCS 446)

Professor Daniel Huson of Tübingen University

Subject: Phylogenetic Networks

DEPARTMENTAL VISITORS

Professor Domenico Piccolo has recently arrived from the Department of Statistical Sciences at the University of Naples Federico II, Italy, on a 3-month Erskine Fellowship. Domenico will be giving some 300-level lectures on likelihood-based statistical inference (the first half of STAT314). His area of research includes time series analysis with a special emphasis on ARIMA and ARFIMA modeling, decomposition methods and forecasting, with applications to economics, hydrology, demography and financial data. Between 1980-90 he co-ordinated several projects that implemented a unifying approach to the seasonal adjustment procedures for public institutions in Italy. Recently, his research interests have moved towards ordinal modelling where he has introduced a new class of models useful for marketing, evaluation, and ranking. Domenico is hosted by Marco Reale and is based in Room 605.

| Current Visitors | Name of Organization | From | To | Room | Extn |
|-------------------------------|------------------------------------|-------------|---------------|-------------|-------------|
| Dr John Holt | Massey University, NZ | 15 Mar 2005 | 31 Mar 2006 | 502 | 7663 |
| Tanja Gernhard | University of Munich | 16 Sep 2005 | 31 Mar 2006 | 616 | 8876 |
| Dr Emily Lane | University of California, USA | 1 Oct 2005 | 31 Mar 2006 | 502 | 7663 |
| Ramona Schmid | Tübingen University, Germany | 6 Jan 2006 | 6 Jun 2006 | 620 | 7431 |
| Erick Matson | Harvard University, USA | 8 Jan 2006 | 26 April 2006 | 620 | 7431 |
| Dr David Borchers | University of St Andrews, Scotland | 23 Jan 2006 | 11 Aug 2006 | 501 | 8376 |
| Simone Linz | University of Dusseldorf, Germany | 24 Jan 2006 | 30 Apr 2006 | 605 | 8028 |
| Dr John Newell | University of Ireland, Galway | 1 Feb 2006 | 24 Jun 2006 | 501 | 8376 |
| Prof. Domenico Piccolo (E) | Univ. of Napoli Federico II, Italy | 7 Feb 2006 | 6 May 2006 | 605 | 8028 |
| Dr Sean Cleary | City University of New York, USA | 9 Feb 2006 | 10 Apr 2006 | 607 | 8875 |
| Dr Katherine St John | City University of New York, USA | 9 Feb 2006 | 10 Apr 2006 | 607 | 8875 |
| Dr Gene Myers | UC Berkeley, USA | 12 Feb 2006 | 12 Mar 2006 | 724 | 7691 |
| Prof. Daniel Huson (E) | Tübingen University, Germany | 15 Feb 2006 | 30 Jun 2006 | 624 | 8877 |
| Visitors due to arrive | Name of Organization | From | To | Room | Extn |
| Prof James Oxley | Louisiana State Univ, USA | 13 Mar 2006 | 17 Mar 2006 | 724 | 7691 |
| Prof Geoff Whittle | Victoria University, Wellington | 13 Mar 2006 | 17 Mar 2006 | 724 | 7691 |
| Dr Laura Ciobanu | Auckland University | 26 Mar 2006 | 1 Apr 2006 | 710 | 7694 |
| Dr Balchandra Thatte | Massey University | 1 Apr 2006 | 1 Oct 2006 | 616 | 8876 |
| Dr Vincent Berry | Univ of Montpellier II, France | 3 Apr 2006 | 14 Apr 2006 | 724 | 7691 |
| Prof. Stephen Gardiner (E) | University College Dublin, Ireland | 01 Jul 2006 | 31 Aug 2006 | 605 | 8028 |
| Prof Christian Robert (E) | Université Paris Dauphine, France | 8 Jul 2006 | 20 Aug 2006 | 607 | 8875 |
| Prof. Jeremy Levesley (E) | University of Leicester, England | 9 Jul 2006 | 14 Sep 2006 | 605 | 8028 |