

Newsletter

Mathematics & Statistics

ISSUE 2/09

March 2009

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STATISTICS NEW ZEALAND PRIZE



Government Statistician Geoff Bascand, accompanied by John Hannah, presenting the Statistics New Zealand Prize to 2008 joint winners Shakira Suwan and James Dawber earlier this year.

HoD NEWS

Warmest congratulations to Jennifer Brown, our incoming Head of Department from July this year. I know that it will be as big a change for her as it will be for me and I wish her all the best.

Congratulations also to Douglas Bridges, whose research team, together with other research groups in Europe and Japan, have been awarded a competitive grant under the NZ-European Union (EU) Marie Curie International Research Staff Exchange Scheme. The project, entitled *Constructive Mathematics: Proof and Computation* will be funded for two years, to cover travel and subsistence for visits to New Zealand and Japan by the EU mathematicians based in Munich, Uppsala and Padova, and visits from Japan/New Zealand to Europe by the group members based outside the European Union.

And a belated congratulations to Alex James, the latest departmental recipient of a University of Canterbury Teaching Award. You will all have a chance to support her when she is presented with the award at the April Science Faculty graduation ceremony. Previous winners of this award include John Hannah, Peter Renaud and Liz Ackerley.

I am pleased to report that Peter Humphries and Hannes Diener have been appointed to short-term postdoctoral fellowships in the Department. Peter's position (March – July 2009) is funded jointly by the Marsden Fund and this Department. He will be working on combinatorial aspects of tandemly repeated sequences. Hannes will continue his work on constructive reverse mathematics. His primary focus, in conjunction with Douglas Bridges and Iris Loeb, will be on existence theorems for solutions of ordinary differential equations. On completion of his fellowship in April 2010, Hannes will be taking up a position at the University of Siegen in Germany.

- David Wall

PAPERS SUBMITTED:

Faller B, Semple C and Steel M: *On Approximation of Optimizing Phylogenetic Diversity for Cluster Systems* (to Information Processing Letters)

PAPERS ACCEPTED

Bryant D and Steel M: *Computing the distribution of a tree metric* (IEEE/ACM Transactions in Computational Biology and Bioinformatics)

Steel M: *The 'Penny Ante': Mathematical biology or biological mathematics?* (NZ Science Review)

Steel M and Faller B: *Markovian log-supermodularity and its applications in phylogenetics* (Applied Mathematics Letters)

PAPERS PUBLISHED

D S Bridges & L S Vita: *A constructive theory of apartness on lattices* (Scientiae Math. Japon. 69(2), 187-206, 2009)

Semple C & Steel M: *Mathematical aspects of the 'Tree of Life'* (Math. Horizons)

P L Wilson, H Huang, S Takagi: *Hydrophobic Effect in a Continuum Model of the Lipid Bilayer* (Comm. Comput. Phys. 6(3): 655-672, 2009)

CASS WORKSHOP 2009



Cass Workshop 2009

A week-long workshop funded by the Allan Wilson Centre, "Wild Ideas: Speculations in Theoretical Evolutionary Biology", was held at the University's Cass Field Station from 21 February to 1 March. Approximately 15 students, postdocs and visitors, mostly from overseas, took part. They included Professor Andreas Dress, Co-Director of PICB in Shanghai, Professor Benny Chor from Technion and Professor Daniel Huson from Tübingen. From our department, participants included Beata Faller, Mareike Fischer, Mike Steel and Raaz Sainudiin. Some foul weather ensured that plenty of work was carried out indoors in front of the fire, on topics ranging from population genetics and phylogenetic networks to the study of speciation and extinction processes. When the weather cleared, some 'field trips' were hastily organised to Cave Stream, Mt Bealey, Avalanche Peak and Andrews Valley.

WELCOME TO OUR DEPARTMENTAL VISITORS

<u>Visitor</u>	<u>Organization</u>	<u>Host</u>	<u>From</u>	<u>To</u>	<u>Room</u>	<u>Extn</u>
Dr Bhalchandra Thatte	Univ. of Oxford, UK	M Steel	11/1/09	31/3/09	605	8028
Dr Magnus Bordewich	Univ. of Durham, UK	C Semple	12/1/09	27/3/09	720	8337
Anton Hedin	Univ. of Uppsala, Sweden	D Bridges	20/1/09	20/3/09	605	8028
Dr Wolfgang zu Castell	Helmholtz Centre, Munich	R Beatson	15/2/09	6/6/09	607	8875
Prof. Carey Priebe	John Hopkins Univ., USA	D Lee	21/2/09	5/4/09	607	8875
Dr Simone Linz	UC Davis, USA	C Semple	22/3/09	13/4/09	620	7431

CONFERENCES & VISITS

Rick Beatson: First PRIMA Congress 2009, University of New South Wales, 6 – 10 July 2009. Talk entitled: *Kernal-based methods for vector data with correlated components*

Shannon Ezzat: Representations and Asymptotic Group Theory conference, University of Southampton, 6-7 April 2009

Shannon Ezzat: Postgrad Group Theory conference, Manchester, 15-17 April 2009-03-02

Clemency Montelle: Embodied Empiricism Workshop, University of Sydney, 20-22 February 2009

Rua Murray: First PRIMA Congress 2009, University of New South Wales, Sydney, 6 – 10 July 2009

Marco Reale: 18th IMACS World Congress MODSIM 2009, Cairns, 13-17 July 2009. Talk entitled: *Graphical Models for VARMA Structural Representation.*

Raaz Sainudiin: Cass Phylogenetics Workshop, Cass Field Station, 26 February – 1 March 2009

Meghan Williams: IUFRO International Forest Biosecurity Conference, Rotorua, 16-20 March 2009

Dominic Lee has been appointed an Associate Editor of the journal *Computational Statistics and Data Analysis*.

TOP TEN JOBS

Marco Reale has drawn our attention to a recent JobsRated.com report that ranks 200 American occupations based on the following criteria - stress, physical demands, hiring outlook, compensation and work environment. The top 10 jobs are as follows:

- 1. MATHEMATICIAN!**
2. Actuary
- 3. STATISTICIAN!**
4. Biologist
5. Software Engineer
6. Computer Systems Analyst
7. Historian
8. Sociologist
9. Industrial Designer
10. Accountant

PIZZA PARTY



Thanks to Honours student Thomas Steinke, who organised a very successful pizza party this month to give our students a chance to meet and socialise. Approximately 50 students, ranging from first year to PhD level, thoroughly enjoyed this opportunity to put names to faces. Thanks also go to Clare Bycroft, Joe Zhu, Shannon Ezzat, Alex James, Ben Martin and the office staff for their help in organising this event.