

Newsletter

Mathematics & Statistics

ISSUE 1/06

FEBRUARY 2006

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ACTING HEAD OF DEPARTMENT

Rick Beatson has been appointed Acting Head of Department for 6 months while **David Wall** is on sabbatical leave. **John Hannah** continues in the role of Deputy Head of Department.

SUMMER HOLIDAY HIGHLIGHTS

The focus is on daughters as **Mike Steel** leads his up a mountain and **Bob Broughton** leads his down the aisle!



Mike & Emma at Otira Valley



Fleur & Bob at the University Staff Club

BIRTHDAY HONOUR

A special issue of the Journal of Universal Computer Science entitled *Constructivity, Computability, and Logic* was edited by Cris Calude (University of Auckland) and Hajime Ishihara (JAIST, Ishikawa) in honour of **Douglas Bridges'** 60th birthday. The website: http://www.jucs.org/jucs_11_12

CONFERENCES

Mike Steel and **Charles Semple** will be attending the Annual NZ Phylogenetics Conference in Kaikoura from 12-17 February.

Arno Berger will be attending the AIMS Conference on Dynamical Systems in Poitiers, France, from 25-28 June and giving a lecture on Nonautonomous Shadowing.

PhD student **Kyoko Fukuda** will be attending the 3rd biennial meeting of the International Environmental Modelling and Software Society in Vermont, USA from 9-12 July. She will be presenting a paper entitled: *Comparing data mining and image segmentation approaches for classifying defoliation in aerial forest imagery.*

SCHOLARSHIPS

Congratulations to **Gavin Bell** and **Hui Yao**, who have been awarded UC Senior Scholarship for 2006. The names of those who have been awarded departmental scholarships should be available for the next newsletter.



Gavin Bell



Hui Yao

BOOK MANUSCRIPT SUBMITTED

D Bridges & L Vita: *Techniques of Constructive Analysis* (Springer's Universitext series)

PAPER SUBMITTED

O Gascuel & M Steel: *Neighbour-Joining Demystified* (Molecular Biology and Evolution)

PAPERS ACCEPTED FOR PUBLICATION

D Bridges, J Berger & P Schuster: *The fan theorem and unique existence of maxima.* (J. Symbolic Logic)

D Bridges & P Schuster: *A simple constructive proof of Kronecker's density theorem.* (Elemente der Mathematik)

L Szekeley & M Steel: *The variational distance between two trees.* (Annals of Applied Probability)

PAPERS PUBLISHED

P Lockhart & M Steel: *A tale of two processes.* (Systematic Biology 54(6) 948-951)

G Steinke: *Flat Laguerre planes of Kleinewillingh\ "ofer type E obtained by cut- and- paste.* (Bull. Austr. Math. Soc. 72, 2005, 213-223.

G Steinke: *Flat Laguerre planes admitting 4-dimensional groups of automorphisms that fix at least two parallel classes.* (Abh. Math. Sem. Univ. Hamburg 75, 2005, 163-177.

UPDATE ON THE WAYLENS

Peter and Jackie Waylen have moved to Victoria, Australia, where Jackie now has a position in the Monash University Library.

DEPARTMENTAL VISITORS

Allan Wilson Centre

Many Allan Wilson Centre (AWC) visitors are arriving at this time.

Prof. Daniel Huson from the University of Tübingen, Germany, will arrive on 15 February on a 6-month Erskine Fellowship – an extranumerary Erskine between Mathematics, Computer Science and Biology. Daniel, who has visited us before, developed much of the software that allowed the human genome to be sequenced a few years ago. He will be giving some 400-level lectures and talks. Daniel will be based initially in Room 624, moving later to Room 607.



*Tanja Gernhard
abseiling at Waitomo*

Dr Katherine St John and **Dr Sean Cleary** from the City University of New York will be visiting for 2 months. Both are Mathematicians – Sean is a group theorist and Katherine works in bioinformatics. Sean and Katherine will be in Room 607.

Dr Stefan Grunewald, visiting this month, was an AWC Post Doctoral Fellow here last year and is currently working for the Max Plank Institute in the new computational biology centre in Shanghai, China. Stefan will be in Room 720.

Dr Oliver Will from the USA started as a new AWC-funded Post Doctoral Fellow on 1 February and is also based in Room 720. A second AWC-funded Post Doctoral Fellow, **Erick Matsen**, will commence later in the year. Erick is already here as a student visitor (see below) and can be found in Room 620.

Professor Michael Baake, Professor of Mathematical Biology at the University of Bielefeld, Germany, will be visiting for a few days towards the end of this month and giving a talk.

Professor Vincent Moulton (UEA) and **Professor Gene Myers** (UC Berkeley) will also be visiting briefly this month as part of the scientific review of the AWC. Vince is a mathematician and Gene (Room 724) an expert in bioinformatics.

In addition, the centre has several Summer students from abroad arriving to further their studies: **Tanja Gernhard** (see photo above) from Munich is doing her Diplom thesis; **Ramona Schmid** from Tübingen and **Simone Linz** from Dusseldorf are doing part of their PhDs here; and **Erick Matsen** from Harvard is completing his PhD here. Finally, **Mareike Fischer**, a new AWC-funded PhD student from Kaiserlauten Germany, arrives this month to commence her degree here.

Most of these AWC visitors will also be attending our phylogenetics conference in Kaikoura (12-17 February) which has attracted 50 participants from 8 countries.

NB: During term one, there will be free biscuits, slices, etc, for all departmental staff and visitors at morning and afternoon tea, courtesy of the Allan Wilson Centre.

Mike Steel

Dr David Borchers has recently arrived from the University of St Andrews in Scotland. David is head of the Research Unit for Wildlife Population Assessment, which specializes in the development and application of innovative statistical methods for wildlife assessment problems. He is looking forward to working with Jennifer Brown over the next 6 months on wildlife assessment problems relevant to NZ wildlife conservation. His visit to Canterbury is partly sponsored by an NZIMA grant. David is in Room 501.

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DEPARTMENTAL VISITORS (contin.)

Last, but by no means least, is the newly arrived **Dr John Newell**, hosted by Marco Reale and based in Room 501. John is a Lecturer in Statistics in the Department of Mathematics, National University of Ireland, Galway. He is visiting the Department until June 2006 and is joined by his wife, Karen. John's main area of research involves Applied Statistics including multivariate survival analysis problems, computational inference, functional data analysis, and applications in medicine and sports science. He is the Consultant Statistician for the Sports Performance Unit at Glasgow Celtic Football Club and, last week in Auckland, had the dubious distinction of appearing on nationwide TV as a stretcher-bearer at the NZ Knights 1-1 draw with league leaders Adelaide!

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
Dr Martin Bridgeman	Boston College, USA	28 Nov 2005	12 Feb 2006	710	7694
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
Visitors due to arrive	Name of Organization	From	To	Room	Extn
Dr Stefan Grunewald	Max Plank Institute	1 Feb 2006	2 Mar 2006	720	8337
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
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 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