

Newsletter

Mathematics & Statistics

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EVOLUTION 2007



Participants at the Durmont-Durville workshop on Applied Evolutionary Bioinformatics, held at the Kaikoura Marine Laboratory from 24-27 June. The meeting was funded from France and a follow-up meeting will be held in Montpellier in July next year

WELCOME

Welcome to **Raazesh Sainudiin**, who has recently taken up a position as Lecturer in this department. Raazesh comes to us from Oxford University's Department of Statistics, where he was a Research Fellow. He will be teaching STAT218 in semester 2.

FAREWELL

Post-doctoral Fellow **Erick Matsen** is returning to the USA to take up a 3-year Miller fellowship at the University of California Berkeley, after a year at Canterbury funded by the Allan Wilson Centre.

CONGRATULATIONS

PhD student **Klaas Hartman** has obtained funding from Google for a 3-month project writing code for phylogenetic diversity analysis, as part of Google's "Summer of Code" initiative.

Gabrielle Christenhusz has been accepted for a degree programme in Theology and Religious Studies at the University of Leuven in Belgium. Because of her outstanding academic background, she has been admitted to the abridged version of this programme and, after 2 years, will enrol for a canonical degree at the Masters level.

POST-DOCTORAL FELLOWS

Welcome to our new Postdocs: **Bhalchandra Thatte** (Mike Steel) and **Iris Loeb** (Douglas Bridges) are joining **Britta Basse** (Alex James), who arrived in August last year.



Departing Postdoc **Erick Matsen** (with suitable footwear!) presenting his talk on 'shuffle statistics' and neutral evolution at the Dumont-Durville Workshop in Kaikoura.



New Postdoc **Iris Loeb** being presented with her PhD recently at Radboud Universiteit in Nijmegen, The Netherlands.

POSTDOCTORAL POSITION AVAILABLE

This position starts in December 2007 and will be funded by EPSRC for 2.5 years. The project is on statistical techniques for reconstructing pedigrees from genomic data. The candidate will spend 2 years at Oxford University (Statistics) and 6 months in the Biomathematics Research Centre. Enquiries to Mike Steel.

CONFERENCES

Dominic Lee: 3rd IMS-OSBA Joint Meeting, Bormio, Italy, 7 - 11 January 2008

Jason Bentley, Scott Graybill, In Kang, Marina Zahari & Zhaojing Gong: registration to attend the NZSA / John Deely conference in Christchurch 4- 6 July 2007.

Scott Graybill: joint annual meetings of the Society for Mathematical Biology and the Japanese Society for Mathematical Biology, San Jose, California, 31 July – 3 August 2007.

Daniel Lond: International Algebraic Conference dedicated to the 100th anniversary of D K Faddeev, St Petersburg, Russia September 2007

Phil Wilson: AMS-NZMS 2007 conference at Victoria University 12-15 December 2007.

Ben Martin spent 2 weeks in Oberwolfach in June as part of the Research in Pairs programme. He was doing research on algebraic groups with 3 collaborators from the UK.



Douglas Bridges being admitted as a Corresponding Fellow of the Royal Society of Edinburgh during a visit to Scotland this month. From right: Prof. Sean McKee (Industrial Mathematics, University of Strathclyde), DSB, Prof. Andrew Miller (Royal Society), Prof. Sir Michael Atiyah, a Royal Society official, and, on the sofa, Douglas's daughter Catriona.

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>
Simone Linz	Dusseldorf University, Germany	C Semple	29/9/06	31/8/07	724	7691
Will Pyman	Wentworth College, England	A James	1/5/07	15/9/07	710	7694
Tobias Thierer	University of Auckland	M Steel	21/5/07	21/12/07	616	8876
Dr Vincent Berry	Montpellier University, France	C Semple	18/6/07	4/7/07	605	8028
Prof. Willy Hereman	Colorado School of Mines, USA	M Hickman	1/7/07	20/12/07	605	8028
A/Prof Jane McDougall	Colorado College, USA	Q Bui	8/7/07	30/8/07	607	8875

Prof. Willy Hereman

Willy Hereman comes to us from the Colorado School of Mines for Semester 2, during which time he will be lecturing MATH363. His areas of interest include nonlinear wave phenomena, soliton theory, symmetry analysis, integrability, wavelets and software development in mathematica.



Associate Prof. Jane McDougall



Jane McDougall is a former UC honours graduate who went to Northwestern University Chicago for graduate study and currently has a tenured position at Colorado College. Her research interest is in the area of complex analysis and operator theory. She will be helping us with the teaching of MATH108-W in Term 3.

PAPERS SUBMITTED

Erick Matsen, Elchanan Mossel, and Mike Steel: *Mixed-up trees: the structure of phylogenetic mixtures.* (Submitted to Bulletin of Mathematical Biology.)

B Thatte & M Steel: *Reconstructing pedigrees: a stochastic perspective* (Submitted to Journal of Theoretical Biology)

CONFERENCE PAPER ACCEPTED

Moorhead K, Lee D, Chase J, Moot A, Ledingham K, Allardyce R, Sentilmohan S, and Endre Z (2007): *Classification Algorithms for SIFT-MS Medical Diagnosis* (29th International Conference of the IEEE Engineering in Medicine and Biology Society, 23-26 August, Lyon, France.)

PAPERS ACCEPTED

M Steel, A Mimoto & A O Mooers: *Quantifying a taxon's expected contribution to future phylogenetic diversity* (Evolutionary Bioinformatics Online)

F A Matsen & M Steel: *Phylogenetic mixtures on a single tree can mimic a tree of another topology* (Systematic Biology)

D S Bridges, H Ishihara, P M Schuster & L S Vita: *Apartness, compactness and nearness* (Theoretical Comp. Science)

D S Bridges & J Berger: *The anit-Specker property, a Heine-Borel property, and uniform continuity* (Archive for Math. Logic)

PAPER PUBLISHED

D S Bridges: *Colocatedness and Lebesgue integrability* (Computation and Logic in the Real World – Proc. 3rd Conference on Computability in Europe, Siena, June 2007, eds S Cooper, B Löwe & A Sorbi; Lecture Notes in Computer Science 4497, Springer-Verlag, Berlin-Heidelberg, 2007)

PhD STUDENTS IN PARTY MODE



Michael Langton



Scott Graybill, Hannes Diener, Sarah Kerr & Daniel Lond



Peter Humphries & Nicole Kleinstreuer