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SUMERIAN GEOMETRY CUNEIFORM TABLET



This photo, taken in the Louvre by Douglas Bridges, shows a Sumerian tablet on which is depicted a regular heptagon. The tablet dates from c.1500BC and is clear evidence that geometry was alive long before Euclid wrote the world's best-selling textbook in around 300BC.

CONGRATULATIONS

Ron Begg has been awarded his PhD degree and has been placed on the 2007 Dean's List for Excellence.

Jason Bentley won a student prize at the 2007 NZ Statistical Association Conference in July for his talk on *Bayesian analysis of linear regression models using exact Markov chain Monte Carlo*.



Congratulations to **Andrew & Kathleen Richens** on the birth of their third child, Canyon.

ALLAN WILSON CENTRE

On 6 July, the new Governance Board of the Allan Wilson Centre held its inaugural meeting here in the department. This board provides general oversight of the management and running of the AWC and consists of Professors David Parry (Chair), Carolyn Burns, Garth Cooper, and Des Cooper (Australia), Mr Rauru Kirikiri, Mr Jim McLean (Director of Genesis Research) and Mr Paul Rieger.

PAPERS SUBMITTED

Beata Faller, Fabio Pardi & Mike Steel: *Distribution of phylogenetic diversity under random extinction* (submitted to Journal of Theoretical Biology)

Mareike Fischer & Mike Steel: *Expected anomalies in the fossil record* (submitted to Journal of Theoretical Biology)

J A Brown with J Ohuma, H M Chapman, T Iyiola & C Akosim: *Nigerian montane forest fragments: fruit, frugivores and seed dispersal* (submitted to Biotropica)

J A Brown with A H Smith: *The response of rare herbaceous plants to the removal of unwanted competitors in an unproductive environment* (submitted to Community Ecology)

PAPERS ACCEPTED

Mike Steel, Aki Mimoto & Arne Mooers: *Hedging our bets: the expected contribution of species to future phylogenetic diversity* (Evolutionary Bioinformatics Online)

R L Owen & G F Steinke: *Actions of $R^{\infty}SL_2(\mathbb{R})$ on Laguerre planes related to the Moulton planes* (Journal of Lie Theory)

G F Steinke: *More on Kleinwillinghöfer types of flat Laguerre planes* (Results in Mathematics)

PAPERS PUBLISHED

K Hartmann, L Bode & P Armsworth: *The economic optimality of learning from marine protected areas* (ANZIAM J. 48 (CTAC2006) pp. C307-329, 2007-08-02)

Stefan Grunewald, Mike Steel & M Shel Swenson: *Closure operations in phylogenetics* (Mathematical Biosciences 208, 521-537, 2007)

R K Beatson & H-Q Bui: *Mollification formulas and implicit smoothing* (Advances in Comp. Math. 27 (2007), 125-149)

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	720	8337
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
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

RESEARCH GRANTS

- **Rick Beatson:** 2-week research visit by Dr Oleg Davydov, University of Strathclyde re work on splines.
- **Charles Semple:** local costs of Professors James Oxley and Geoff Whittle re work on Matroid theory.
- **Marco Reale & Jennifer Brown:** visit by statistician Paulo Justiniano Riberto re work on R-programming
- **Alex James:** project on modelling honeydew production by scale insects in Canterbury beech forests, involving Professor David Kelly (School of Biology).

CONFERENCES

- **Scott Graybill:** South Island Mathematics & Statistics Postgraduate conference later this year.
- **Bill Rea:** NZ Econometric Study Group, Hamilton, August
- **Neil Watson:** 51st Annual Meeting of the Australian Mathematical Society, 25-28 September
- **Jason Bentley:** Spring Bayes, Brisbane 26-28 September
- **Carl Scarrott, Bill Rea & Xin Zhao:** MODSIM07, Christchurch, 10-13 December
- **Mark Hickman & Neil Watson:** Joint Meeting of the American & NZ mathematical societies, Wellington, 12-15 December
- **Klaas Hartman, Beata Faller & Mareike Fischer:** Future Directions in Phylogenetic Models and Methods, Isaac Newton Institute for Mathematical Sciences, Cambridge, UK, 17-21 December
- **Ben Martin:** Conference on Finite Groups and Representations, Kaikoura, 14-18 January 2008

MATHS ENRICHMENT EVENINGS

Enrichment evenings for high school maths students are run by John Hannah on the first Friday of each month during the school terms. These sessions have been running for 16 years, with speakers from the fields of Physics, Chemistry, Biology and Engineering, as well as Mathematics.

Attendance from city schools is limited to a few enthusiastic individuals, but over the years there has been strong support from a series of South Canterbury teachers who bring up one or two minibus-loads of students to experience the maths and the city lights!

This year's topics include infinity, computational complexity, mathematical modelling of biological systems, and number systems. Phil Wilson was the most recent speaker and his talk entitled *Building Numbers: from Ancients to Aliens via Starfish and Mp3* was well-received by an audience of around 30.

PHILIP LLOYD QUOTE (NZ Maths Magazine, May 2007)

"Students want to be challenged, and they also want the satisfaction that comes from overcoming those challenges. Using a graphics calculator to solve a quadratic equation simply involves entering a , b , and c , and pressing *solve*. Where is the joy in this? How does this promote the spirit of wonder or achievement? I think it actually stifles it for most students."

- David Robinson

NZSA CONFERENCE & CONFERENCE IN HONOUR OF PROF. JOHN DEELY



John Deely giving his plenary talk



John Deely with Prof. Roy Sharp

The Department had the pleasure of hosting the the NZSA Annual Conference, followed by a Conference in Honour of Professor John Deely from 4-6 July. There were 100 national and international attendees, with 20 educators for the statistics education session.

John Deely, former Professor of Statistics at UC, developed the only NZ stronghold on Bayesian statistics, which he nurtured until his retirement in 1996 to take up a position at Purdue University. He started the conferences off in his usual entertaining style, outlining milestones in his long history with Canterbury and fond stories of the many people who have influenced his career.

The Deely conference attendees were treated to a series of talks that blended statistics with sermonizing, anecdotes with asymptotics, and Bayes with everything. For two fun-filled days, John's colleagues and former students presented on a broad range of statistical topics, all the while leaving no doubt in the minds of their audience just how much John's friendship and guidance had meant to them over the years.

The conference ended with a feast, courtesy of Frank Lad and Belle Melzer in the comfort of their own home. The night was a celebration, the perfect end to a wonderful week. John's family and friends relaxed as the wine, tears and speeches flowed. John spent the entire evening wearing a broad smile – he was as "happy as Larry".

Thanks to the organising committee – Carl Scarrott, Dominic Lee, Marco Reale, Jennifer Brown, Ian Westbrooke, Richard Penny, Rebecca Bangma, Easaw Chacko and Mik Black – for their sterling work.

- Carl Scarrott



Mik & Carl, the conference Chairs



Members of the local organising committee – missing are Easaw, Jennifer, Dominic and Raaz

NZSA CONFERENCE (contin.)



Jason Bentley & Matt Schofield



John Deely with former students



Speakers from the special education session



Raaz Sainudiin and friends (rear: Ron & Sharon Christensen)



Prof. Jim Berger with Ann & John Deely