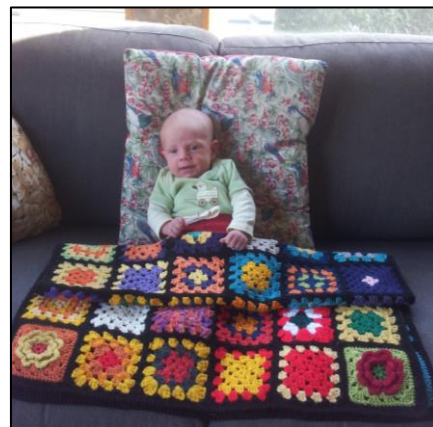


**September 2014 Newsletter**  
**Mathematics & Statistics**



**Arts and Craft Revival!**

Who else but the 'crafty' Clemency Montelle and Jeanette McLeod could persuade School staff to turn their hands to crocheting peggy squares for Alex James's son? The end result, stitched together beautifully by Jeanette, is displayed here to great effect by young Seth.

**Douglas Bridges to Retire Next Year**

Professor Douglas Bridges will be retiring next year after 16 years at UC. Douglas's last day will be 24 April 2015. I wanted to take the time now to say what a valuable member of the School Douglas has been. His going will leave a very large gap. I have known Douglas through all his time with us, but over the last five years have had the privilege to work much more closely with him. He is well-known for his research – it is at a very high international level - but it's the other more personal side of his work I admire and thank him for. He's a great colleague, he supports staff in many ways and is a great friend to us all. Thank you, Douglas.

- Jennifer Brown

*And a research tip from the man himself:*

"Lots of times, in my twenty-five years in New Zealand, I've heard colleagues complaining about not having time for thinking, yet spending 30 minutes or more over coffee/tea. Be disciplined about the time you spend in coffee and lunch breaks!"

**Outstanding PhD Defence**

Congratulations and best wishes for the future to Abdul Haq, who successfully defended his PhD thesis this month. His examiners were full of praise for the quality of his work and expressed the opinion that he had delivered more in just over two years than most candidates would in six.

Included in the examiners' comments was the following: "At many academic institutions in the US, Mr Haq's body of work would be enough to warrant tenure and promotion."

Abdul was supervised by Jennifer Brown and Elena Moltchanova. In this photo, Jennifer is presenting Abdul with a greenstone mere after the successful completion of his PhD oral examination.



### **IBM Research Fund Grant**

Congratulations to Phil Wilson and Miguel Moyers-Gonzalez who have been awarded a \$60,000 grant from the IBM Research Fund for their project proposal entitled *Gone with the wind: pedestrian comfort, pollutant dispersion, and infrastructure resilience in the city*.

### **UCSA 2014 Lecturer of the Year Nominations**

Congratulations also to Jeanette McLeod and Phillipa Williams who were nominated for the UCSA 2014 Lecturer of the Year award.

### **Papers Submitted**

Sanderson, M.J., Steel, M., Zwickl, D., McMahon, M. and Stamatakis, A.: *Further Impacts of Terraces on Phylogenetic Inference*, Systematic Biology.

Steel, M.: *Reflections on the Extinction-Explosion Dichotomy*, Theoretical Population Biology.

### **Conferences and Visits**

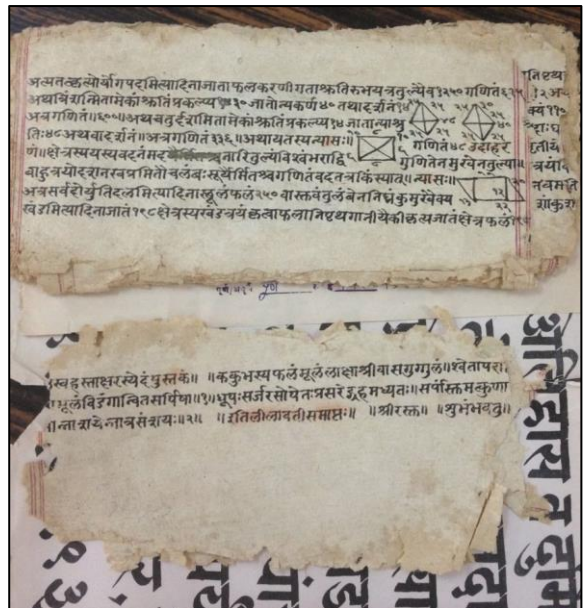


(Above left) Courtesy of Steve Manion comes this photo of (L to R) Steve, Nick Brettell and Joe Zhu, who caught up recently in Dublin. In the interests of demonstrating to current PhD students that there is 'light at the end of the tunnel', Steve reports that they had a good after-PhD drink and also found time to tour the Guinness Brewery and the Tullamore Dew Distillery! Joe is a Postdoc at Oxford University, Nick is a Postdoc at ENS Lyon, and Steve has just presented a paper at the \*SEM Conference in Dublin.

(Above right) Elena Moltchanova, who is currently on sabbatical, pictured with colleagues in front of 'the Schloss', the castle where the International Institute for Applied Systems Analysis is situated in Laxenburg, Austria.

Raaz Sainudiin, who is currently visiting Cornell University, is co-ordinating BTRY 6940 (Graduate Special Topics in Biometry and Statistics) with Professor Jim Booth as the instructor. For more information, see: <https://www.math.cornell.edu/~raazesh/LifeNetworks2014.html>. Raaz is also giving a talk at the Cornell Center for Applied Mathematics Colloquium on 10 October titled *A Correlated Site Percolation Model for a Viscoplastic Fluid* (joint work with Miguel Moyers-Gonzalez and Teodor Burghelea).

Richard Vale attended the conference *The Language of Symmetries – a Viewpoint from Representation Theory and Geometry*, in Prishtina, Kosovo on 11 July, and then gave a seminar at CREEM (The Centre for Research into Ecological and Environmental Modelling) in St Andrews, Scotland, on 16 July.



**Bhaskara 900 Conference**

Clemency Montelle was an invited speaker at the Bhaskara 900 conference in Mumbai, India. Bhaskara was one of India's most famous mathematicians, born 900 years ago in 1114 CE. Above left: Clemency gains access to a Sanskrit manuscript collection in a private library and is rifling through the shelves for anything mathematical. Above right: A manuscript of one of his most famous works, the Lilavati.

**2015 Move for Raaz Sainudiin**

Raaz Sainudiin has been granted, leave for one year in 2015 to work with the Wynyard Group. This is a great opportunity for Raaz, and for us to strengthen our links with the company.

- Jennifer Brown

**What if Wednesdays**  
**What if we could predict Game of Thrones?**

**Richard Vale (School of Mathematics & Statistics)**  
**Wednesday 8 October at 7:00pm in C3 Lecture Theatre**

- Can we predict something as unpredictable as Game of Thrones?
- How can we say how uncertain we are about our prediction?
- How uncertain are we about our uncertainty?

George R. R. Martin's A Song of Ice and Fire novels have become very popular, especially since the TV series Game of Thrones started in 2011. One of the most fascinating things about the books is that they are very unpredictable, with long-running and popular characters being unexpectedly killed off, and widespread speculation about future plot developments. This makes them an interesting subject for statistical prediction. This talk will cover some general aspects of prediction, probability and forecasting and describe a model which can be used to predict the future of Game of Thrones. We also discuss the shortcomings of the model and explain why some things probably cannot be predicted in a meaningful way, and why this should not stop us from trying to predict them anyway. The talk requires no prior knowledge of statistics. **However, note that it will be hard to avoid major spoilers for the five existing books, so please be careful!**

## **Canterbury Statistics Days - 12 & 13 November 2014**

This year we are combining Statistics Research Day and Canterbury Statistics Teachers' Day into one event called Canterbury Statistics Days.

### **Research Day (12 November)**

Please join us for this special annual event showcasing statistics research in Canterbury. We would like to hear about your research in statistics and in any field where you have used statistics. The gathering is also a great opportunity to meet new and old friends. Last year we had a great range of talks from topics in Biostatistics, Econometrics, Geo-statistics, Health Statistics, Official Statistics and Ecology. This year, our invited speakers are Professor Graham Wood, currently based in Dunedin, and Professor Timo Teresvirta from Denmark. We will also have short (approximately 15 to 20-minute) contributed talks throughout the day. Please email your full name and affiliation to Jennifer Brown ([Jennifer.brown@canterbury.ac.nz](mailto:Jennifer.brown@canterbury.ac.nz)) by Friday, 31 October, if you wish to attend. If you would like to present your research work, please also include a title and a short abstract of your talk.

### **Teachers' Day (13 November)**

Teachers' Day is organised in conjunction with the Canterbury Mathematical Association and will focus on teaching statistics at high school level. Lillian Grace from Wiki New Zealand is the invited speaker. If you wish to attend Teachers' Day on 13 November, please contact Michelle Dalrymple at [drd@cashmere.school.nz](mailto:drd@cashmere.school.nz).

Venue for both days: Undercroft 101, Puaka-James Hight Building, University of Canterbury  
Time: 9:30am to 4:00pm (morning tea, lunch, and afternoon tea provided).

### **Contacts**

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Dr Michelle Dalrymple, Cashmere High School, Ph: 332 9129 ext 783, email: [drd@cashmere.school.nz](mailto:drd@cashmere.school.nz).

## **News from the Library**

- Library Liaison Officer for Mathematics and Statistics, Dr Phil Wilson <http://bit.ly/NKgZ2J>
- New titles for Mathematics and Statistics <http://bit.ly/NVj1hV>; for Mathematical Statistics <http://bit.ly/MIS2WA>; new-titles-list generator <http://bit.ly/1brTI3E>
- New books: Librarians' Picks of the Month <http://canterbury.libguides.com/newbooks>
- "From Hieroglyphs to Text Messages" exhibition at EPS Library extended until 28th September <http://bit.ly/1tylcc4>

### **From the Web**

1. A Dating Site for Algorithms [Algorithmia] (MIT Technology Review) <http://bit.ly/1xvbOxk>
2. Inconsistent Mathematics, Reutersvärd, and Buddhism: An Interview with Chris Mortensen (3QuarksDaily) <http://bit.ly/1qumKGJ>
3. Sharks Are Accidentally Good at Math (Motherboard) <http://bit.ly/1sg3cs8>
4. How a 19th Century Math Genius Taught Us the Best Way to Hold a Pizza Slice (Wired) <http://wrd.cm/WBWxdI>
5. Why Aren't We Writing? [productive academic writing] (Inside Higher Ed) <http://bit.ly/1qqQYbj>
  - a. Refers to Paul Silvia's book "How to Write a Lot," held by UC Library <http://bit.ly/XjEQiP>
6. Today's Intellectuals: Too Obedient? (Times Higher Education) <http://bit.ly/Y6Eb5u>
7. Scholars Take Aim at Student Evaluations' 'Air of Objectivity' (Chronicle of Higher Education) <http://bit.ly/1sxv2uj>
8. Australia's Chief Scientist Makes Pitch for Science (Chemistry World) <http://rsc.li/1ILxzUu>
9. A Tough Year for Australian Science (physicsfocus) <http://bit.ly/1nGVGiJ>
10. Book Publishing, Not Fact-Checking (The Atlantic) <http://theatlntc/1q3lfyT>
11. Putting Open Science into Practice: A Social Dilemma? (First Monday) <http://bit.ly/1xGcbFE>
12. Interview with Laurel Haak of ORCID: Supporting the Efforts with Membership and Integration (Scholarly Kitchen) <http://bit.ly/1o76HKz>

### **And on the lighter side...**

- Andertoons, September 7, 2014 <http://bit.ly/1tDsmka>
- Off the Mark, September 8, 2014 <http://bit.ly/1werpNn>
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John Arnold | Mathematics/Statistics Liaison Librarian  
<http://canterbury.libguides.com/profile/JohnArnold>