



FELLOWSHIP OF THE ROYAL SOCIETY OF NEW ZEALAND

Congratulations to Charles Semple who was elected a Fellow of the Royal Society of New Zealand last month. Charles is recognised as a world-leading researcher in the fields of matroid theory and phylogenetics. The Royal Society of New Zealand now has 391 Fellows who are involved in providing expert advice, promoting best and innovative research practice and disseminating information on the sciences and humanities. Also included in their ranks are Douglas Bridges, Mike Steel, Roy Kerr and Graeme Wake.



NZMS AITKEN PRIZE WINNER

Congratulations to Timm Treskatis, who was jointly awarded the NZ Mathematical Society's Aitken Prize for best student talk at the NZMS Colloquium this week. Nick Brettell was highly commended for his talk.

AMERICAN MATHEMATICAL SOCIETY NOTICES

Congratulations to John Hannah and Clemency Montelle for making the front cover of this month's Notices of the American Mathematical Society!

<http://www.ams.org/notices/201311/201311-full-issue.pdf>



STUDENT SUCCESS AT NZSA CONFERENCE

Congratulations to **Chris Bryant**, who won the junior division of the Harmonic Analytics student prize at the 2013 NZSA conference in Hamilton last month. His presentation was on work sponsored by Statistics New Zealand and done as a departmental summer student in the 12/13 summer break. He was commended by the judges for his communication skills and the fact that "it was clear the material was very well understood." The presentation of **Yang Hu's** Master's thesis work was a runner up for the Catalyst IT/Dragonfly Open Research Prize. As part of Yang's thesis he developed an R package "evmix" for extreme value mixture modelling and boundary corrected kernel density estimation. **Bibi Suwan** also wowed the conference with her "Person of Interest"-themed talk on Bayesian network modelling.

Photo L to R: Daniel Fernandez, Victoria University – senior division); Sarah Wu (Harmonic Analytics); Roy Costilla (Victoria University – mid division); James Curran (NZSA President); and Christopher Bryant (UC – junior division).

FAREWELL

This month we farewell two US-bound academics:

James Degnan is taking his young family back to their home town of Albuquerque, New Mexico, where the grandparents will no doubt be eagerly waiting. We wish him well in his new position at the University of New Mexico in Albuquerque.

Also leaving us this month is Blair Robertson, who will be taking up a tenure-track professorship at the University of Wyoming in Laramie – a town on a high plain between 2 mountain ranges with a lowest recorded temperature of minus 46 degrees. Good luck, Blair!



HoD's 2013 REVIEW

This has been a very busy and productive year that seems to have flown by. I'm sure you're all looking forward to a break over the holidays to spend time with family and friends.

After 45 years, we said 'goodbye' to Peter Renaud, although I'm sure we will continue to see him in the department.

It has been a very successful year for research grants and awards. Douglas Bridges and Maarten McKubre-Jordens were awarded an EU Marie Curie IRSS grant, Rua Murray's teaching excellence was recognized with an AKO Aotearoa Tertiary Teaching Excellence award, and more than 10 staff were nominated for the UCSA lecturer awards. We still have a strong link with Roy Kerr and celebrated with him the award of his Einstein Medal. Congratulations, also, to our former PhD student Joe Zhu who was awarded a Chinese overseas student fellowship earlier this year.

We had 5 incoming Erskine Fellows – Peter Olsson, Sean Cleary, Carey Priebe, Martin Buhmann and Elizabeth Allman – plus 2 outgoing Erskines in Douglas Bridges and Patrick W Saart. We benefit greatly from the Erskine programme, and our Erskines have all been a delight to host. As usual, there has been a steady stream of other visitors, a particular highlight being the visit of the distinguished mathematician Terence Tao, who was a very engaging speaker.

The department hosted various KidsFest activities designed to encourage the next generation of students, and last month hosted the Canterbury Statistics Open Day, which is an opportunity for all statisticians in this region to share their research.

Well done to everyone involved in the department's success in achieving 100% compliance in primary objectives for the Health and Safety audit. On that note, I wish you all a safe and healthy holiday and an invigorated start to 2014!

- Jennifer Brown



Jennifer Brown welcoming the Statistics Open day participants

STATISTICS OPEN DAY

On 20 November, the Department of Mathematics and Statistics with the collaboration of Plant and Food Research organized a one-day event - the 2013 Canterbury Statistics Open Day. This is the second consecutive year that our department has networked with people in all areas of statistics and related fields, from public and private organizations. On the day, there were nine quality talks from various fields and applications, e.g., analytics, Bayesian statistics, official statistics, statistical phylogenetics, biostatistics, New Zealand longitudinal census study, etc. (Presentation slides can be downloaded from the Canterbury Tails website: <http://www.math.canterbury.ac.nz/canterbury-tails/>). Generous financial support from the College of Engineering through lunch and coffee/tea breaks provided a great opportunity for attendees to keep in touch and strengthen their ties in the Canterbury statistics community.

- Nate Wichitaksorn

PAPER ACCEPTED

Venturini, M., Chen, X.Q., Asgari, H., and Sainudiin, R.: *Modeling and Simulation of the Transient Behavior of an Industrial Power Plant Gas Turbine*, Journal of Engineering for Gas Turbines and Power, 2013.

GRADUATION

Congratulations to the following students who are eligible to graduate this month:

PhD: Sha (Joe) Zhu (Statistics), Daniel Lond (Mathematics) **MSc:** Irene van Woerden (Statistics)

BSc Hons: Sophia Di (Mathematics), Quan Duy Ho (Mathematics), Andreas Kempe (Mathematics), Julie Mugford (Mathematics) **BSc:** Theo Archer (Mathematics), Fiona Bennetts (Mathematics), Andrew Croxson (Statistics), Lawrence Dam (Mathematics & Physics), Michael Hawke (Mathematics & Economics), Allanah Kenny (Mathematics), Mimi Liu (Mathematics & Economics), Matthew Males (Finance & Mathematics), Mitchell McIntyre (Mathematics), Aurelie Pagwiwoko (Mathematics), Harris Pirie (Mathematics & Physics), Samuel Ramsay (Statistics), Stephanie Rowe (Mathematics), Jack Simpson (Mathematics), Benjamin Weber-Sparrow (Mathematics & Philosophy), Jeffrey Westphal (Mathematics & Economics), Jodi White (Mathematics & Economics). **BA:** Ricki Galway (Mathematics).



CONFERENCES AND VISITS



Joint NZSA-ORSNZ Conference

Department attendees at the 2013 Joint NZSA and ORSNZ Conference from 24 – 27 November at the University of Waikato were (L to R): Nate Wichitakorn, Elena Moltchanova, Jennifer Brown, Carl Scarrott, Shakira Suwan and Chris Bryant.

Talks

Maarten McKubre-Jordens: *A Fresh Look at the Continuum*, NZMS Colloquium in Tauranga, 3-6 December.

Raaz Sainudiin: *An Auto-validating Rejection Sampler for Differentiable Arithmetical Expressions using Randomized Priority Queues of Mapped Regular Pavings*, 14th European Workshop on Automatic Differentiation, 9 - 10 December, Oxford University.

Postgraduate Conference



Massive mountains, lush landscapes, a secluded settlement - Cass, home to the homonymous university field station, turned out to be an ideal venue to facilitate fruitful exchange of mathematical ideas among postgraduate students from throughout New Zealand. Thanks to generous funding from our department and other sponsors, a group of nine PhD and Masters students represented Canterbury at this year's instalment of the annual NZ Mathematics and Statistics Postgraduate (NZMASP) conference, on the 11th to 14th of November.

Besides a wide variety of student talks, which everyone agreed to be of an excellent standard, the agenda featured invited speakers Emmanuel Jo (SAS Institute Inc.), Alex James (Applied Mathematics), Jeanette McLeod (Pure Mathematics) and Elena Moltchanova (Statistics). Students benefited from the opportunity to network with young and established researchers, to chair sessions, and to present their research in front of a supportive audience. The three lecturers even provided detailed written feedback on the contributed talks for the speakers to put into practice at future presentations.

(contin.)

Postgraduate Conference (contin.)

One highlight, which isolated Cass had to offer, was the view of the stars on a clear night. Imagine a bunch of excited mathematicians spotting satellites, observing shooting stars and identifying brightly shining planets – made easy with augmented reality star maps on smartphones!

Congratulations to this year's winners of the four prizes for the best talks, two of which were awarded to students from our department (James Dent, Pure Mathematics, and Timm Treskatis, Applied Mathematics / People's Choice). The conference organisers Peter Jaksons, Nick Brettell, James Dent and Rachelle Binny did a great job running a conference that never went behind schedule. Peter, Nick and James, who are about to submit their PhD theses, make the Department very proud by investing their particularly precious time for the sake of New Zealand's maths and stats postgraduate community. Conference attendees appreciated how Rachelle made everyone feel welcome with a friendly smile and nice conversation. It will be a hard challenge for next year's organisers in Auckland to reach the high standards Canterbury has set this year!

-Timm Treskatis

WELCOME TO OUR DEPARTMENT VISITORS

Visitor	University/Organization	Host	From	To	Room	extension
Michelle Galla	Germany	M Steel	25/10/13	20/01/14	616	8876
Lina Herbst	"	"	"	"	"	"
Matt Hendtlass		D Bridges	18/11/13	tba	723	8339

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>; new-titles-list generator <http://bit.ly/1brTI3E>
- New books: Librarians' Picks of the Month <http://canterbury.libguides.com/newbooks>

From the Web

1. Together and Alone, Closing the Prime Gap (Quanta Magazine) <http://bit.ly/18oBBM2>
2. Models to Predict Scientists' Future Impact Often Fail (ScienceDaily) <http://bit.ly/1go4om4>
3. TPP: This Is a Fight Worth Joining [Trans-Pacific Partnership] (Consumer) <http://bit.ly/HGgnMO>
4. Post Open-Access Sting: An Interview with John Bohannon (Scholarly Kitchen) <http://bit.ly/18ptwki>
5. Google Books Lawsuit Dismissed: "All Society Benefits," Says Judge Chin (Scholarly Kitchen) <http://bit.ly/1isLxWp>
6. Time to Talk [post-publication online discussion] (Nature News & Comment) <http://bit.ly/1hjRIOD>
7. Why Do Academics Blog? (Mewburn and Thomson, Studies in Higher Education, 38, 1105-1119) <http://bit.ly/HGgiZq>
8. Tweeting and Blogging Aren't Wastes of Academics' Time – They Can Be Valuable Outreach (Physicsfocus) <http://bit.ly/1aRMrKC>
9. The Slow University? (Carl Honoré) <http://bit.ly/1fdQJN>

And on the lighter side...

- Walk or Run in the Rain? There's an Equation for That <http://n.pr/186Ei4P>
- Flipping Pancakes with Mathematics (Guardian) <http://bit.ly/1feBEMq>
- A New Kind of Food Science: How IBM Is Using Big Data to Invent Creative Recipes (Wired) <http://wrd.cm/1boOHJB>
- Here's Waldo (Slate) <http://slate.me/196godD>

John Arnold | Mathematics/Statistics Liaison Librarian
<http://canterbury.libguides.com/profile/JohnArnold>



Compliments of the Season!

