2015 University of Canterbury Innovation Medal

Congratulations to Rick Beatson who is to be awarded the 2015 UC Innovation Medal at a University Council function in November.

In announcing this award, Dr John Wood, Chancellor, said that the Innovation Medal recognizes Associate Professor Beatson’s work on the development of radial basis function algorithms and their successful application in the laser scanning and geophysical modelling industries. His work has facilitated the growth of business and employment in Christchurch and overseas, particularly in the manufacture of medical devices and in mineral exploration. His work is a great credit to himself and the University of Canterbury.

Welcome to our School Visitors

<table>
<thead>
<tr>
<th>Visitor</th>
<th>University</th>
<th>Host</th>
<th>From</th>
<th>To</th>
<th>Room</th>
<th>Extn</th>
</tr>
</thead>
<tbody>
<tr>
<td>Thomas Forster</td>
<td>Cambridge</td>
<td>M McKubre-Jordens</td>
<td>10/8/15</td>
<td>14/8/15</td>
<td>605</td>
<td>8028</td>
</tr>
<tr>
<td>Danny Dolev</td>
<td>Hebrew, Jerusalem</td>
<td>R Sainudiin</td>
<td>17/8/15</td>
<td>2/9/15</td>
<td>605</td>
<td>8028</td>
</tr>
<tr>
<td>Alan Hastings</td>
<td>UC Davis</td>
<td>A James</td>
<td>26/8/15</td>
<td>15/9/15</td>
<td>720</td>
<td>8337</td>
</tr>
<tr>
<td>Robin Havea</td>
<td>South Pacific</td>
<td>D Bridges</td>
<td>1/9/15</td>
<td>17/9/15</td>
<td>605</td>
<td>8028</td>
</tr>
<tr>
<td>Kim Plofker</td>
<td>Union College NY</td>
<td>C Montelle</td>
<td>7/9/15</td>
<td>17/12/15</td>
<td>714</td>
<td>7687</td>
</tr>
<tr>
<td>Marta Casanellus Rius</td>
<td>Barcelona</td>
<td>M Steel</td>
<td>8/9/15</td>
<td>6/12/15</td>
<td>616</td>
<td>8876</td>
</tr>
<tr>
<td>Ingrid Daubechies</td>
<td>Duke, USA</td>
<td>McLaurin Lecture</td>
<td>24/9/15</td>
<td>25/9/15</td>
<td>605</td>
<td>8028</td>
</tr>
<tr>
<td>Jon Pitchford (Erskine)</td>
<td>York, UK</td>
<td>A James</td>
<td>24/9/15</td>
<td>30/10/15</td>
<td>607</td>
<td>8875</td>
</tr>
</tbody>
</table>

Erskine Fellow

Welcome to Dr Jon Pitchford, a familiar face who comes to us from the York Centre for Complex Systems Analysis at York University, UK. His field of special interest is Mathematical Ecology and he’ll be teaching Fourier Systems and Laplace Transforms in MATH202, and Branching Processes and Poisson Processes in MATH407. He’ll also be involved with postgraduate supervision and our seminar series. Jon is hosted by Alex James and will be based in Room 607 (extn 8875).

Associate Professor Marta Casanellus Rius

Welcome to Marta Casanellus Rius who is visiting for 3 months from the Applied Mathematics Department of the Technical University of Catalunya, Spain. Marta will be based in Room 616 and is being hosted by Mike Steel. She will be visiting with her husband and three children, aged 9, 6 and 4. Marta works in the area of algebraic statistics and computational biology.

- Mike Steel
Conferences and Visits

**Hannes Diener:** inward visit by Robert Hannah, Waikato University, for a History of Mathematics seminar, 8-9 October.

**Jeanette McLeod:** research visit to Brendan McKay, Australian National University, Canberra, 23 August-5 September.

**Clemency Montelle:** visiting professorship (teaching into programme) at Chennai Mathematics Institute and invited speaker at the Conference on History and Development of Mathematics, Mumbai, 25 October-16 November.

**Clemency Montelle:** Kim Plofker research visit to UC, Chennai Mathematics Institute visit with Clemency, and Mumbai conference, 4 September-17 December.

**Miguel Moyers-Gonzalez:** research visit to Ian Frigaard, University of British Columbia, Canada, and to attend, as co-organiser, the BIRS for Viscoplastic Fluids Workshop at the Banff International Research Station, Alberta, Canada, 12 October–4 November.

**Anggha Nugraha:** Non-classical Logic: Theory and Applications Conference, Nicolaus Copernicus University, Torun, Poland, 22-30 September.

**Raaz Sainudiin:** invited by the Centre for Mathematics and its Applications, Ecole Polytechnique, Palaiseau, France, to work on a constructive randomized algorithm underpinning a well-known model of speciation that is not representable by an evolutionary construction. He will spend September in the Department of Mathematics, Stockholm University, Sweden, to work on enclosure arithmetics over pairs of trees and some learning-theoretic aspects of their recomputable and resilient distributed-machine representations under the project CORCON: Correctness by Construction, Seventh Framework Programme of the European Union, Marie Curie Actions-People, International Research Staff Exchange Scheme (IRSES).


**Raaz Sainudiin:** An Interval Tree Arithmetic for Computationally Amenable Operations with Maps in Metric Spaces, 9 September 2015, Logic Seminar, Department of Mathematics, Stockholm University, Sweden. And on 29 September, a seminar on *Mayonnaise, Mustard and Mathematics: a Hydrodynamic Limit of a Correlated Site Percolation Model of a Viscoplastic Fluid*, at the Centre for Inter-disciplinary Mathematics seminar series, Uppsala University, Sweden.

**Charles Semple:** research visit to Geoff Whittle, Victoria University, Wellington, 11-14 August.

**Mike Steel:** conference speaker at Phylomania 2015, the UTAS Theoretical Phylogenetics Meeting, and speaker at a Workshop on Stochastic Processes in Biology, University of Tasmania, 10-19 November.

**Gunter Steinke:** NZMS 2015 Colloquium registration, University of Canterbury, 1-3 December. Also, giving a talk at the Conference on Combinatorial Mathematics and Combinatorial Computing (39 ACCMCC), University of Queensland, 6–11 December.
Congratulations! Congratulations to Jasper Mackenzie on completion of his MSc degree. Jasper holds a Callaghan Innovation grant, which is co-sponsored by the Wynyard Group.

- Miguel Moyers-Gonzalez

Congratulations also to Josie Noble, daughter of our Adjunct Senior Fellow and part-time lecturer from AgResearch, Alasdair Noble, who has distinguished herself at the Special Olympics’ Summer World Games in Los Angeles last month by winning New Zealand’s first gold medal in the 100 metres freestyle event.

Academic Cloud-computing Infrastructure Grants
The proposal for UC's Scalable Data Science programme has been successful in the Databricks Academic Partners Program and Amazon Web Services Education Initiative.

These infrastructure grants allow scalable modules for big-data algorithmics and analytics to be incorporated into existing UC courses in the School across computational topics in optimisation, linear algebra and discrete mathematics. UC students and faculty can learn, teach, and conduct academic research in state-of-the-art distributed and scalable computing environments at no infrastructural cost.

http://www.math.canterbury.ac.nz/~r.sainudiin/courses/Scalo bleDataScience/

- Raaz Sainudiin

Paper Submitted

Papers Accepted


Papers Published


**Calling all MathSoc Members and Postgrads in Maths and Stats!**

Starting this month, we'll have student talks every Friday at 4:00pm in Erskine 446. These informal talks are run for students by students and are a great opportunity to practise presenting in a friendly and supportive atmosphere. Each week we'll have 1 or 2 speakers giving short presentations. Talks can be on your current work or another topic relevant to students in science, for example science communication, data visualization, unconscious bias in science, a crash course in MATLAB or R, etc. Now and then, we'll also arrange collaborative cross-department student talks or invite a guest speaker, such as a member of staff from the School.

This is a great place to practise upcoming conference presentations in a more relaxed setting or to get more general presenting practice and feedback. The talks also provide a good opportunity for skill-sharing and getting to know other students who share an interest in Maths and Stats.

If you would like to give a talk or have any questions, please email rachelle.binny@pg.canterbury.ac.nz or giulio.dallariva@pg.canterbury.ac.nz. We look forward to seeing you all there!

- Rachelle Binny

---

**News from the Library**

- New books: Librarians' Picks of the Month [http://canterbury.libguides.com/newbooks](http://canterbury.libguides.com/newbooks)

**From the Web**

3. The Singular Mind of Terry Tao (NY Times) [http://nyti.ms/1Ov4wxL](http://nyti.ms/1Ov4wxL)
9. Do We Know How to Judge Teaching? (Inside Higher Ed) [http://bit.ly/1JqAXhu](http://bit.ly/1JqAXhu)
12. Metrics Have Their Place but Peer Review Remains King (Chemistry World) [http://rsc.li/1I3Pa2Q](http://rsc.li/1I3Pa2Q)
13. Can Wikipedia Survive? (NY Times) [http://nyti.ms/1dyW3ga](http://nyti.ms/1dyW3ga)

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

- What Do Mayonnaise and Hollandaise Have to Do with Math? (National Geographic) [http://bit.ly/1GKo3Gb](http://bit.ly/1GKo3Gb)
- A Quick Puzzle to Test Your Problem Solving (NY Times) [http://nyti.ms/1M8OFnl](http://nyti.ms/1M8OFnl)

John Arnold | Mathematics/Statistics Liaison Librarian