

School of Mathematics and Statistics

Newsletter

September 2016

Congratulations to ...

- Jonathan Hodgson who successfully defended his thesis entitled ‘On the theory of symmetric MHD equilibria with anisotropic pressure’ on 14th September.
- Tom Kempton and Aspa who got engaged while on holiday on the Greek island of Thassos. They met seven years ago when they took a German course together at Warwick, and then moved to Utrecht for three years and then to Edinburgh where Aspa is doing a PhD in economics.
- Gemma Prescott, who won the bronze medal for F32 Women’s Club Throw in the Rio Paralympic Games, repeating her bronze performance in London four years ago. Gemma graduated in St Andrews with an MMath degree in 2006.

Welcome to ...

- Our new PhD students: Ashley Clayton, Craig Miller, Chris Russell, Fernando Flores Brito and Adan Mordcovich, all in the Algebra and Combinatorics Group; Han Yu and Doug Howroyd in Analysis; Jack Reid, Hendrik-Jan Van Damme and Mats Wallberg in the Solar Group; and Nseobong Peter Uto, Stuart Burrell and Christina Fell in Statistics.
- Lindesay Scott-Hayward who comes back as a teaching fellow to help Monique in developing our first three online modules in statistics. Also a renewed welcome to Hannah Worthington whose post has been extended to the end of the academic year and Valentin Popov whose post has been extended by two years.
- Mihaela Dobrescu from Christopher Newport University, Virginia, who is visiting the Analysis Group for the Martinmas Semester.

Meetings Organised

- About 50 people gathered at the conference on ‘Mathematical Biography: A MacTutor Celebration’, organised by the School in conjunction with the British Society for the History of Mathematics. Held in Parliament Hall on 16-17th September, we attracted the Principal to open it, and an eclectic collection of speakers from graphic novelists to big data analysts. Entertainment included a scientific walking tour of St Andrews, and the film ‘Fermat’s Last Tango’ of a musical about Andrew Wiles and Fermat’s Last Theorem.

Conferences and Visits

- Jean Reinaud attended the International Conference in Applied and Theoretical Mechanics in Montreal, 22nd-26th August. He gave a talk on work with David Dritschel and Xavier Carton, a French colleague who visited and gave a seminar in St Andrews last academic year.
- David Dritschel made an extended visit to Jacobs University, Bremen, to work with a colleague there and another from Sydney on a new approach to ‘balance’, which aims to model the relatively slow dynamics in PDEs containing a mixture of fast and slow time scales. The direct application is to rotating stratified flows, but the method is more general and makes use of a Hamiltonian variational formalism. Whilst there, David also gave a seminar on modelling moist convective processes.

- Nik Ruskuc visited Robert Brignall at the Open University 7-9th September to work on well-quasi-ordering properties of permutations and graphs.
- Sophie Huczyska began her sabbatical with a research visit to London during Orientation Week. She was hosted by Maura Paterson at Birkbeck University of London, and also collaborated with Siaw-Lynn Ng from Royal Holloway College. They are investigating applications of finite fields to various combinatorial problems arising in coding and cryptography.
- Peter Cameron, currently on a research visit to the University of Western Australia, gave a departmental colloquium talk on ‘The random graph and its friends’ on 15th September.
- Tom Kempton and Sascha Troscheit attended the ‘Workshop on Fractals, Ergodic Theory and Number Expansions’ in Utrecht, The Netherlands, 30th August - 2nd September, where Sascha gave a talk about the differentiability of distribution functions.
- Rosemary Bailey spent three weeks in August and September visiting the University of South Australia, where she took part in a meeting of the Advisory Board of the Phenomics and Bioinformatics Research Centre and continued her research collaboration with Chris Brien into the design and analysis of multi-phase experiments.
- Janine Illian was an invited speaker at the Global Chance and Biodiversity conference in Monte Verità, Switzerland. She was also on the scientific committee of and attended, with David Borchers, the 5th Workshop on Latent Gaussian Models in Bath and attended the SECURE Annual Conference in Glasgow
- Wolfgang Kimmerle of the University of Stuttgart visited Alexander Konovalov from September 12-16th to work on torsion units in integral group rings.

Other News

- A Special Issue of ‘Statistical Science’ appeared this summer, celebrating the 50th anniversary of the Cormack-Jolly-Seber model in mark-recapture. Three keystone papers, by Richard Cormack (1964), George Jolly (1965) and George Seber (1965), laid the foundations of almost all open-population capture-recapture modelling. The Special Issue features interviews with Richard Cormack and George Seber, and a range of papers that review subsequent developments and explore current research topics. At the time that Richard was developing his research, he met George Jolly daily over coffee, frequently playing ‘kriegspiel’ – a version of chess where you cannot see the other’s board – yet neither was aware that the other was working on capture-recapture!
- For those who like their news in 256 characters or less(!)...
Both the Solar and Magnetospheric Theory Group and the Mathematical Biology group joined Twitter this month. Interesting news, articles, links, journal papers, outreach events, etc. can be found via [@SMTG_StAndrews](#) and [@StAMathBio](#), not to mention [@CIRCA_StAndrews](#), who blazed a trail on Twitter! Regular contributions from staff not online or on Twitter are very welcome - hopefully Twitter can be another tool to publicise/raise awareness of Maths and its applications at St Andrews and elsewhere.
See James Threlfall, or tweet him [@JamesWThrelfall](#), for more details.

Future Events

- CoDiMa (The Collaborative Computational Project led by Steve Linton and Alexander Konovalov) will hold a week-long training school in Computational Discrete Mathematics on 17th-21st October at the International Centre for Mathematical Sciences in Edinburgh. This provides a modern-style intensive training on using mathematical software in your research, and UK-based PhD students may apply for financial support. See <http://www.codima.ac.uk/school2016/>



Caption Competition

- Suggestions for captions for last month's picture included:
 - ‘Mentoring new staff in Pure Maths’ (DLB)
 - ‘Like father, like son; academically speaking’ (TJB)
 - ‘KJF: “Use the force Jonathan, use the force.”’
 - JMF: “The force is strong with this one, Master.” ’ (MAJC)
 - ‘Preparations for YRM (Yawn Reflex Management) 2016 begin in earnest’ (JWT)
 - ‘Dr Todd gives another talk on statistical stability’ (JMF)

Next Issue

- The next edition of the School Newsletter will be circulated in October. Items for inclusion may be sent to schoolnews@mcs.st-andrews.ac.uk at any time but a reminder will be sent out a week before the deadline.