

School of Mathematics and Statistics

Newsletter

June 2019

Congratulations ...

- to Fiona Macfarlane who successfully defended her PhD thesis on 5th June. She is the first Mathematical Biology student at St Andrews to gain a PhD.

Farewell ...

- to Patrick Antolin will shortly be leaving St Andrews University to join the solar group in Northumbria University, where he will resume his STFC ER Fellowship on 1st August. Patrick has accepted a proleptic senior lectureship position in Northumbria. He would like to thank everybody in the School, in particular the solar group, for their collaboration and support these past years.

Conferences Organised

- The *9th Coronal Loops Workshop* was held in St Andrews from 11-14th June, organized by Ineke De Moortel, Thomas Howson, Craig Johnston, Fiona MacFarlane and James Threlfall. Local speakers included Craig Johnston, Patrick Antolin, Paolo Pagano, Tom Howson, Alex Prokopyshyn, Thomas Neukirch, Erin Goldstraw and Jack Reid, with Lianne Fyfe, Petros Syntelis, James Threlfall, Hendrik-Jan Van Damme and Stephanie Yardley presenting posters. The programme also included putting on the Himalayas and a whisky tasting.
- Also from 11-14th June, the *International Conference on Geophysical and Astrophysical Vortex Interactions* took place with David Dritschel, Jean Reinaud and Richard Scott amongst the organisers. Speakers included Helen Burgess as well as David, Jean and Richard. This conference combined with the Coronal Loops Workshop for their dinner in Lower College Hall.

Visitors

- Rachel Skipper (University of Göttingen and École Normale Supérieure de Lyon) visited St Andrews from 2nd-15th June to work with Collin Bleak, Martyn Quick and Jim Belk, funded by a London Mathematical Society Scheme 2 grant, which also funded Rachel to visit the Universities of Lincoln and Oxford. Whilst in St Andrews Rachel spoke at the Pure Mathematics Colloquium on ‘Finiteness properties of braided Higman-Thompson groups’.

Visits and Conferences

- Jon Fraser gave a colloquium at the Open University, Milton Keynes on 16th May entitled ‘The Assouad dimension of Kleinian limit sets’. He also gave a seminar at Imperial College London on 23rd May entitled ‘Approximate arithmetic structure in large sets of integers’.
- Peter Cameron visited Leeds to examine the PhD thesis of Asma Almazaydeh, who, on passing the viva, became Peter’s mathematical granddaughter.
- Jonathan Hickman spent two weeks in China, first visiting the Chern Institute in Tianjin to take part in the *Workshop on Bourgain-Demeter decoupling method* where he gave a talk entitled ‘The circular maximal function for Heisenberg radial functions’. He also visited the Institute of Applied Mathematics and Computational Physics in Beijing and during his visit gave a minicourse entitled ‘Some recent developments on the Kakeya conjecture’.

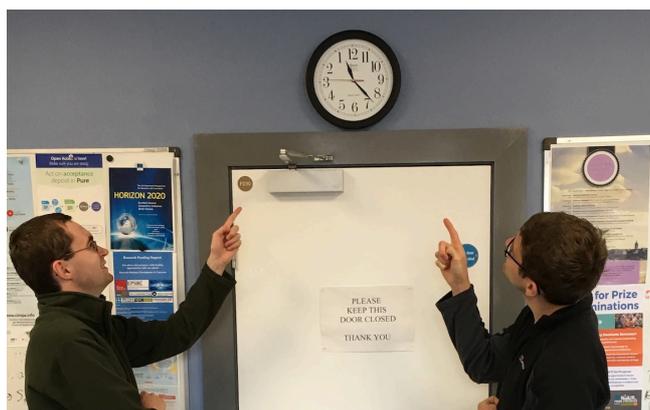
- Mun See Chang, Saul Freedman, Veronica Kelsey and Colva Roney-Dougal attended a summer school on *Modern theory of group actions and the special role of finite simple groups* from 3rd-7th June at the Institut Mittag-Leffler Institute near Stockholm, at which Colva gave a minicourse.
- Nik Ruskuc is visiting University of York from 10-15th June where he has taken on the role of algebra external examiner. He is also continuing his collaboration with Victoria Gould.
- From 18th-21st May, Rosemary Bailey attended the *5th International Conference on Design of Experiments* organized at the University of Memphis in Tennessee. She gave a talk on ‘Blocking in multi-stage experiments’.

Public Engagement

- Isobel Falconer was a guest panelist on BBC Radio 4’s *In Our Time*, on the topic of ‘Kinetic Theory’, broadcast on 23rd May, see <https://www.bbc.co.uk/programmes/m00057s5>
- Jon Fraser gave a talk on ‘Fractals and the hidden geometry of nature’ on 21st May at the Canons’ Gate pub in Edinburgh. This was part of the *Pint of Science Festival* which ran in several pubs across Edinburgh from 20th-22nd May.
- On 24th May Fanny Empacher took part in the annual *Three Minute Thesis* competition in the Byre Theatre with a talk titled ‘Grey seal population modelling using particle filters’. Many congratulations to Fanny who came second overall out of 8 finalists.
- On 28th May Valentin Popov took part in a Bright Club event in Edinburgh where he discoursed on ‘Dating – a statistician’s view’.
- Edmund Robertson and John O’Connor have compiled a new African section in the MacTutor History of Mathematics Archive at <https://www-history.mcs.st-andrews.ac.uk/Indexes/African.html> This new page links to information on 623 Africans with mathematical PhDs, and full biographies with supplementary material for 34 of them, 14 of whom are women. These are complemented by dedicated African indexes and an interactive map.

Caption Competition

- Captions are invited for this photograph taken recently in the Maths Institute staff room. Send your suggestions to schoolnews@mcs.st-andrews.ac.uk The best captions may be included in the next issue of the Newsletter.
- Suggestions for captions for last month’s picture below included:
 ‘Headline: Global warming is proceeding much faster than predicted - both polar ice caps now fit into a single refrigerator!’ TN
 ‘Global warming has led to antarctic wildlife seeking out accommodation in fridges across the world.’ KJF



Next Issue

- The next edition of the School Newsletter will be circulated in July. 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.