

School of Mathematics and Statistics

Newsletter

February 2020

Congratulations ...

- to Claudia Faustino for passing her PhD viva at the University of Aveiro, Portugal. Claudia was a co-tutelle student working on movement ecology and conservation, supervised jointly in St Andrews and Aveiro. Claudia has made many contributions to both the academic and social life at CREEM and we wish her all the best for the future.

Welcome ...

- to Yuheng Wang who arrived on 27th January to start a PhD co-supervised in CREEM and Computer Science. Yuheng comes to us from Imperial College where he did an MRes in Computational Methods in Ecology and Evolution. His PhD project involves developing acoustic spatial capture-recapture methods, focussing initially on gibbon surveys, integrating machine learning methods for call identification with spatial capture-recapture methodology.

Visits, Seminars and Conferences

- Collin Bleak spent 5-12th January visiting Texas for a research visit with Volodymyr Nekrashevych. Whilst there he gave two talks: one at an Algebra Seminar at Texas A&M University entitled ‘On maximal subgroups of R.Thompson’s group V ’ and the other at a Groups and Dynamics Seminar at the University of Texas at Austin on ‘Some free actions for one-sided shift spaces’.
- Jon Fraser gave a talk entitled ‘Box dimensions of projections and dimension interpolation’ at the conference *Geometric Measure Theory* in Padova, Italy on 17th January.
- Jon Fraser was a member of an EPSRC Fellowship Interview panel on 21st-22nd January.
- On 3rd February, Martyn Quick visited the University of York and gave a talk at their Algebra Seminar entitled ‘The structure of groups with specified quotients’.
- Mike Todd attended the conference *Transfer Operators in Number Theory and Quantum Chaos* at the Hausdorff Research Institute for Mathematics (HIM) in Bonn, Germany, from 3rd-7th February where gave an invited talk on ‘Escape of Entropy’.
- Colva Roney-Dougal was one of the organisers of a workshop *Computational and Algorithmic Aspects* at the Isaac Newton Institute, Cambridge from 27th-31st January as part of the programme *Groups, Representations and Applications*. Attendees included Peter Cameron along with Mun See Chang, Ruth Hoffmann, Chris Jefferson and Steve Linton from the School of Computer Science and St Andrews honorary graduate Cheryl Praeger from the University of Western Australia. Chris and Mun See gave talks at the workshop.
- On 23rd January, Rosemary Bailey gave a talk about ‘Multi-part balanced incomplete-block designs’ in the Statistics Seminar at King’s College London.
- David Borchers visited the University of Cape Town for two weeks in January, to work with researchers in the Centre for Statistics in Ecology, Environment and Conservation <http://www.seec.uct.ac.za/> where he has an honorary position.

- On 10th February Michael Papathomas gave an invited seminar at Durham University, Department of Mathematical Sciences, with the title ‘Parameter redundancy and log-linear modelling – Application to modern slavery data’.
- David Rees Jones gave a *Hutton Club Seminar* at Institute of Geography at the University of Edinburgh on ‘Sea ice thermodynamics and brine drainage’ on 24th January.
- Isobel Falconer visited Oxford on 4th February, where she spoke at the *Seminar on the History of the Exact Sciences* on ‘To G or not to G: J H Poynting and the gravitational constant in the 19th century’. She went on to Cambridge where she spent three days consulting with project teams, museums specialists and IT staff over moving the Cavendish Laboratory Museum, which she created some years ago in the present building, to the new laboratory complex [Cavendish III](#).

Outreach

- Colin Campbell was a poster judge at the United Kingdom Mathematics Trust (UKMT) Senior Team Mathematical Challenge National Final held in London on 4th February. There were 88 teams present with four students and a teacher per team. Over 1,200 schools had entered the competition.

Other News

- At 4.03 UT on Monday 10th February, the ESA Solar Orbiter mission successfully launched from Cape Canaveral. Steph Yardley, Duncan Mackay and Paolo Pagano from the Solar and Magnetospheric Theory Group are involved in developing predictive models of the solar corona to support Solar Orbiter’s complex observational campaigns and models of coronal mass ejection for Metis, the coronagraph on board of Solar Orbiter.

Next Issue

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