School of Mathematics and Statistics Newsletter

February 2023

Congratulations to ...

Alex Rutar, a PhD student in the Analysis group, who has won the 2023 London
Mathematical Society Cecil King Travel Scholarship for early career mathematicians. This
highly prestigious award will enable Alex to visit the University of Oulu in then north of
Finland for three months.

Welcome to ...

• Elham Mirfarah who joins us as a new lecturer in Statistics.

Conferences, Talks and Visits

- Michael Papathomas gave a talk at an invited session of the recent CFE-CMStatistics conference from 17-19th December at King's College London, with title 'Prior specifications for Bayesian Mixture Models with Gaussian kernels'.
- Alex Rutar is currently visiting the University of Oulu in Finland, funded by an LMS Cecil King Travel Scholarship (see above). He gave a talk in their *Analysis Seminar*, titled 'Convex Optimization and Multifractal Analysis' on 27th January. He will be there for three months to work with the large fractal geometry research group in Oulu and enjoy a proper snowy winter
- From 16-20th January, Scott Harper visited the University of Warwick to work with Adam Thomas and Gareth Tracey and he also spoke at their *Algebra Seminar* on 'Invariable generation and totally deranged elements of almost simple groups'.
- Peter Cameron attended (remotely) the *International Conference on Recent Advances in Graph Theory and Allied Areas* in Thrissur, Kerala, India, from 2nd-4th February. He spoke on 'What can graphs and algebraic structures say to each other?'
- A group of postgraduate students from the School went for a retreat to the Burn House, near Edzell on the edge of the Highlands, from 16-18th January.



- Laura Johnson visited the Royal Holloway, University of London between 18-20th January. During the visit, Laura gave a seminar talk entitled 'Applications of Various Difference Families'.
- Colin Campbell attended by Zoom the *15th International Group Theory Conference of Iran* held from 9-10th February.
- Konstantinos Alexiou gave a seminar talk on the 13th February to the *Simons Fellows Meeting* in the Center for Mathematical Biology of the University of Pennsylvania where he is currently a visiting scholar. He presented his PhD project so far, with title 'Scaling limits for biochemical reaction networks and a model of multilevel selection with pairwise between-group competition'.

Visitors

• Victoria Gould from the University of York visited Nik Ruskuc and Matthew Brookes to continue their joint work on the EPSRC funded project on congruences and Noetherian properties in semigroups.

Grants

- Michael Papathomas and colleagues from the Schools of Medicine, Computer Science and Geography were awarded a £77,000 St Leonard's Postgraduate College World Leading Scholarship for the project: 'Multimorbidity Dynamics in Scotland: Understanding Socioeconomic and Household Factors, and Predicting Disease Trajectories'
- Duncan Mackay has been awarded a €21,000 contract by STFC/RAL (Rutherford Appleton Laboratory). The contract will assess what improvements arise in modelling the solar wind at Earth if magnetic field observations are made from the L5 Lagrange point located 60 degrees behind the Earth's orbit. The contract is part of an European Space Agency (ESA) proof of concept study to assess the feasibility of a €500M ESA Space Weather mission, named Vigil, proposed for launch in mid 2020s.

Future Events

- Colva Roney-Dougal will be a guest on *In Our Time* to be broadcast on BBC Radio 4 at 9am and 9.30pm on Thursday 23rd February. The programme is on Paul Erdös and the other guests are Tim Gowers and Andrew Treglown.
- The University launched a new health and wellbeing service Peppy on 23rd January. On Friday 17th February at 12pm there is an online Teams event where staff can attend to hear more about the services the University has subscribed to (Menopause/Men's Health), find out how to register and what support is available through the app. The event should last around 45 minutes and staff will have the opportunity to type questions anonymously. There is no need to register in advance

Link to online event: events.st-andrews.ac.uk/events/introduction-to-peppy-health-live-teams-event

Link to the Peppy internal webpage: www.st-andrews.ac.uk/staff/peppy/

Next Issue

• The next edition of the School Newsletter will be circulated in March. Items may be sent to maths-news@st-andrews.ac.uk at any time but a reminder will be sent out a week before the deadline.