

# School of Mathematics and Statistics

## Newsletter

January 2020

### ***Congratulations ...***

- to Nayab Khalid who passed her PhD viva on 20th December with a thesis entitled ‘Rearrangement groups of connected spaces’.

### ***Welcome ...***

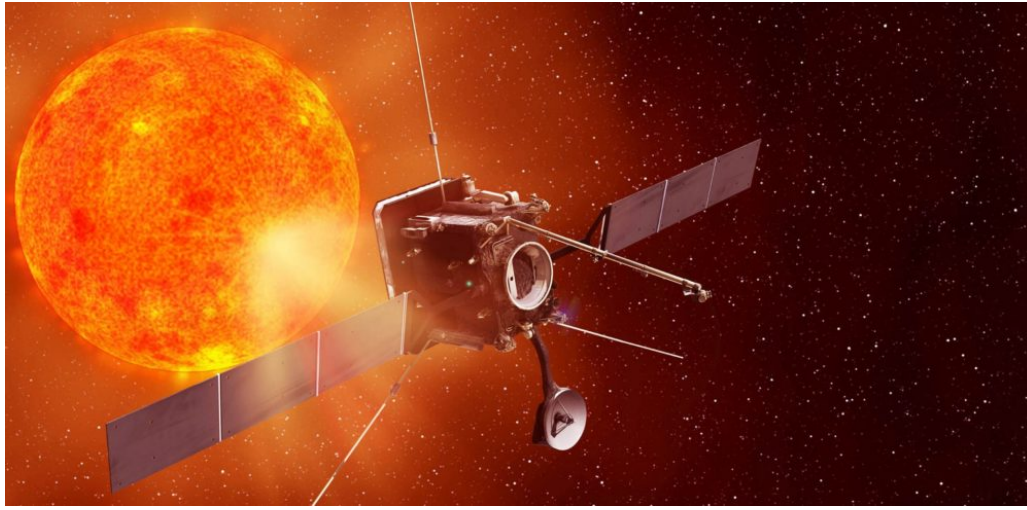
- to Helen Cammack who joined the School on 13th January as an Associate Lecturer (Education Focused) within our Applied Mathematics Division. Helen completed her PhD on ‘Coherence protection in coupled qubit systems’ in December 2018 in our School of Physics and Astronomy and she has recently been teaching in the Division of Mathematics at the University of Dundee.
- to JJ (John Joseph) Valletta who also joined the School on 13th January, as an Associate Lecturer (Education Focused) in Statistics. JJ took an undergraduate degree in electrical engineering at the University of Malta. He diversified into medical statistics for his PhD in Southampton, after which he joined the McLaren Formula 1 team for a couple of years. In 2014 he returned to medical statistics with an MRC research fellowship at the University of Exeter. Swapping the exotic Cornish seaside for the frosty mountains of the Highlands, he is very much looking forward to exploring the Scottish countryside and participating in as many outdoor sports as possible.

### ***Farewell ...***

- to Pablo Shmerkin who was in the Analysis group as a University Global Fellow for the second half of last year. Pablo is now working in Cambridge until the summer when he takes up a professorship at the University of British Columbia in Vancouver.

### ***Visits, Seminars and Conferences***

- Peter Cameron and Colva Roney-Dougal have started 6-month stays at the *Isaac Newton Institute* in Cambridge, to participate in the programme *Groups, Representations and Applications: New Perspectives*, for which Colva is Principal Organiser and Peter is on the Scientific Steering Committee. The opening workshop of the meeting took place from 6-10th January during which Peter gave two lectures on ‘Finite permutation groups’ and Colva gave one on ‘Aschbacher's Theorem’. Rosemary Bailey, Mun See Chang, Veronica Kelsey and Liam Scott also participated, as did recent St Andrews graduates Alund Rizzoli, who spoke on ‘Finite singular orbit modules for algebraic groups’, and Kamilla Rekvényi, our former School President.
- Mike Todd spent 10 days in the United States, visiting his collaborator Mark Demers in Fairfield, Connecticut to work on joint projects involving dynamical systems with holes.
- Kenneth Falconer travelled to Helsinki for 8-11th January as a grants panel member for the Academy of Finland.
- Jon Fraser visited Oberwolfach from 6-10th January for a *Research in Groups* meeting with Henna Koivusalo (Vienna) and Felipe Ramirez (Weslyan) for a project entitled ‘Diophantine approximation on fractals’.
- Istvan Kolossvary, Pablo Shmerking and Alexia Yavicoli attended a *Workshop on Fractals and Dynamics* to mark Boris Solomyak’s 60th birthday from 13-14th January at Bar-Ilan University, where Pablo gave a talk ‘Absolute continuity of self-similar measures’.



*Solar Orbiter*

- On 13-14th January the Solar and Magnetospheric Theory Group hosted the *3rd UK Solar Orbiter Workshop* in St Andrews. Solar Orbiter is a dedicated solar and heliospheric space mission which is a key part of ESA's Cosmic Vision 2015-2025 Programme. Solar Orbiter will be launched from Cape Canaveral on the 5th February (taking some of the Solar Group? – Ed.). The meeting attracted over 50 researchers from across the UK to discuss future scientific objectives and plans. The meeting was organised by Craig Johnston, Fiona MacFarlane, Duncan Mackay, Paolo Pagano and Stephanie Yardley.
- Nik Ruskuc is visiting James East at the Western Sydney University from 6-17th January to continue their EPSRC-funded project on 'Congruences in semigroups'.
- Meredith Houlton, PhD student in the history of mathematics, attended a conference *The Mathematical Book Trade in the Early Modern World* at All Souls College, Oxford, from 19-20th December. A vibrant community of historians of mathematics from around the world and representatives from various special collections libraries gathered for the two day workshop on mathematical books in the early modern period (roughly 1550-1750).

### ***Public Engagement***

- Fiona Macfarlane from Mathematical Biology is taking part in the outreach event *I'm a Mathematician: Get Me Out of Here*. Following the Royal Institution's Christmas lectures 'Secrets and lies: The hidden power of maths', the 'I'm a Mathematician' online platform allows school children and the general public to ask questions to Mathematicians from a range of backgrounds. Schools also can sign up for live chat sessions where students have 30 minutes to ask the Mathematicians about their work. The event runs from 6th-31st January.

### ***Other News***

- A new collaboration between CREEM and Computer Science started in January. Lewis McMillan, a new postdoc, and David Harris-Birtill, both from Computer Science, will be working with Cornelia Oedekoven and Steve Buckland from CREEM on analysing video footage taken during the ship-based trial survey for dolphins in the eastern tropical Pacific. This collaboration will develop algorithms for automatically detecting dolphins and other cetaceans from many hours of video recorded by a long-range drone launched from the ship, aiming to improve existing methods for estimating abundance of dolphins.

### ***Next Issue***

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