School of Mathematics and Statistics Newsletter

February 2024

Congratulations to ...

- Laura Johnson, PhD student in the Algebra and Combinatorics Group, who has been awarded the prestigious 2024 London Mathematical Society *Cecil King Travel Scholarship* for early career mathematicians. This is awarded to 'a young mathematician of outstanding promise, to support a period of study or research abroad'. Laura will be undertaking a visit to the University of Brescia, Italy.
- Felix Petersma who on 29th January successfully defended his PhD thesis: 'Advancements in methods for estimating the abundance of marine megafauna using novel sampling techniques'.

Welcome to ...

- Feyisayo (Shayo) Olukoya who returned to the School on 1st February to take up an EPSRC Postdoctoral Fellowship, working in algebra. Shayo took his undergraduate and PhD degrees in St Andrews and was briefly an Associate Lecturer with us. More recently has been working as a Lecturer in Mathematics at Keele University.
- Bernadette Lessel, the biennial Visiting Scholar in the History of Maths Group. Bernadette is normally based at the Max Planck Institute for the History of Science in Berlin. She will be with us until the end of March, investigating the mathematical models used in the electromagnetic world view of the early 1900s, which attempted a unified theory of everything.
- Justine Schmitt who arrived on 5th February and will be visiting us until the end of July. A student from École Centrale Méditerranée (Marseille, France), she will be doing a research project with Daphné Lemasquerier on wave-mean flow interactions in planetary atmospheres.

Recent Visitors

• Clarence Chen from Shenzhen University visited the Analysis Group from 22nd-26th January and gave a seminar. Members of the School may remember him from when he spent part of his PhD in St Andrews in 2019-20 under the China Scholarship Council scheme.

Conferences, Talks and Visits

- Peter Jupp attended virtually the *International Conference on Computational and Methodological Statistics* in Berlin on 16-18th December. Towards the end of the session on Applied Directional Statistics the connection to the session was lost, so that Peter was unable to deliver his talk on 'Binary stars: uniformity, ambiguity and selection'.
- Scott Harper visited the University of Warwick from 29th January-3rd February to work with Gareth Tracey on a project about derangements in finite groups.

- Alex Stewart spent a week at the *Max Planck Institut für Evolutionsbiologie* in Plön, Schleswig-Holstein, Germany, where he gave a seminar on the bad heuristics people use when making decisions and had a number of productive discussions on how to study repugnance, stereotypes and reputations.
- On 17th January, Victoria Ironmonger gave a talk on 'Well quasi-order for equivalence relations under the consecutive order' at the *York Semigroup Seminar*.
- On 12th February, Peter Cameron gave the first of an annual series of lectures commemorating Simon Norton, one of the authors of the ATLAS of Finite Groups and (with John Conway) the pioneer of Monstrous Moonshine, a connection between finite groups, modular functions, and conformal field theory. The lecture was sponsored by the London Institute of Mathematical Sciences, which occupies Michael Faraday's former suite in the Royal Institution building in London; the lecture took place in his large drawing room.
- Alex Rutar visited Joshua Zahl and Pablo Shmerkin at the University of British Columbia from 12-14th February. He gave a talk in the *Harmonic Analysis and Fractal Geometry Seminar* titled 'Pointwise Assouad dimension and tangents of dynamically invariant sets'.

Other News

• On 16th January, the School hosted visitors from *Scottish Water's Advanced Analytics* team. During their visit, they gave a presentation about their work and graduate careers, attended by around 70 students. The talk was followed by a lively Question and Answer session. On 25th January, *Lloyds Banking Group* made a campus visit, running a drop-in in the Physics Foyer that showcased the wide variety of graduate careers available with large financial companies.



Scottish Water's Advanced Analytics visit

• On 10th February (Spring Festival), Peiran Wu gave a piano performance at *Music from the Chinese-Speaking World: Spring Festival 2024*, an annual event held at the Laidlaw Music Centre. Among the audience were several members of the School, who watched Peiran play a modern arrangement of the Chinese folk tune Jasmine Flower.

Future Events

- On Wednesday 21st February at 5.15pm in School III, St Salvator's Quadrangle, Colva Roney-Dougal will be giving her *Inaugural Professorial Lecture* 'Perfect symmetry: counting what matters'. The lecture will be followed by a reception.
- Advanced notice that on Friday 22nd March at 4pm, St Andrews will be hosting a meeting of the *Edinburgh Mathematical Society*. The speaker will be Mark Jerrum from Queen Mary, University of London and the talk will be aimed at the general mathematician.
- Advanced notice that the *Scottish Combinatorics Meeting* 2024 will be held on 27-28th May at St Andrews. This is the latest in a series of 2-day combinatorics meetings which has been running for several years. See https://sites.cs.st-andrews.ac.uk/scm2024/ for more details.

Caption Competition

• Mark Chaplain received several caption suggestions for the two photos in the January Newsletter including the following:



"I don't want to Melvyn Bragg, but I'm an OBE."

"... and next up on our mathematical karaoke, it's Professor Colva Roney-Dougal who will be giving us her version of *Lobachevsky*."

"What have you done with Melvyn Bragg?"



"Cheers!"

"The name's Falconer... Commander Falconer."

Relaxing in the Officers' Mess after a hard day commanding the British Empire.

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.