

School of Mathematics and Statistics

Newsletter

October 2018

Welcome ...

- to Antoni Malet, who is our first Visiting Scholar in the History of Mathematics. Toni is based at Pompeu Fabra University, Barcelona, and is mainly interested in 16-17th century mathematics, not least having written his PhD thesis on James Gregory, our first Regius Professor. Until recently he was President of the European Society for the History of Science. Toni is with us until the end of November, working on conceptual change in 16th and 17th century mathematics.

Farewell ...

- to Tricia Watson who left the School at the end of September after 21 years of service. Tricia first came to the department in 1983 but left in 1987 to start a family. She returned in 2001 and stayed for another 17 years.

Congratulations...

- Congratulations to Andreia Pereira for successfully defending her PhD thesis entitled 'Investigation of fin whales using ocean-bottom recordings'. Andreia was a cotutelle student, jointly supervised between St Andrews and the University of Lisbon.
- to Kamilla Rekvenyi, our School President, on winning the British Society for the History of Mathematics Undergraduate Essay Prize for her paper on Paul Erdős. As well as £100, the prize includes three years' membership of the BSHM and the opportunity to present her work at the BSHM *Research in Progress* meeting in Oxford next February. Congratulations also to final year undergraduate Tony Peres who was one of two highly commended runners up.

The New and the Old!

- The School now has a Twitter account! The account/handle is @StA_Maths_Stats. School members are invited to contribute *appropriate* tweets.
- A complete set of hard copies of the School *Newsletter* recently appeared in the Editor's box. It would be interesting to know who the anonymous donor is! The first issue is dated 23rd November 1987 and starts off: 'At a recent meeting of the departmental Research Committee, it was decided to launch a newsletter. ... Please send material for inclusion in the next issue to one of the research officers (Colin Campbell, Alan Gordon, Eric Priest) by Thursday 3 December'.

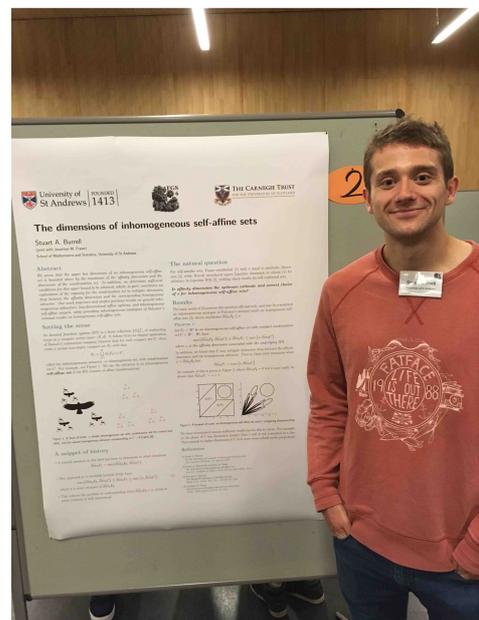
Visits and Conferences

- Tom Elsdon visited the Space Plasma Physics groups at the University of Leicester from 26-27th September, and University College London Mullard Space Science Laboratory from 8-9th October, giving talks on how field line resonances operate in 3D in the Earth's magnetosphere.
- Richard Glennie was invited to speak at a *Symposium on Advances in Animal Movement* during the *25th Wildlife Society Conference* in Cleveland, Ohio 7-11th October. Richard talked about incorporating animal movement modelling into the analysis of camera trap data on jaguars.

- Rosemary Bailey and Peter Cameron visited China for the first three weeks of October. They spent ten days at Shanghai Jiao Tong University, where the geese in the garden did not obey the traffic sign, see the picture! Rosemary gave two talks, on ‘Multi-part balanced incomplete-block designs’ and on ‘Treasure hunt: mistakes and wrong turnings in the search for good designs’, while Peter spoke on ‘Synchronization and separation in the Johnson schemes’ and on ‘The existential transversal property’. They then visited South University of Science and Technology, Shenzhen, for a conference in honour of St Andrews honorary graduate Cheryl Praeger: Rosemary reprised her talk on ‘Treasure hunt’, while Peter spoke on ‘Integrals of Groups’. Peter also gave a lecture to the students, graduate and undergraduate, on ‘The ADE affair’.



- On October 11th Hannah Worthington gave an invited talk at the Glasgow Local Group meeting of the Royal Statistical Society on *The data challenges of UN's Sustainable Develop Goals*. She spoke about methods from ecology and epidemiology to estimate the number of injecting drug users in Glasgow from incomplete contingency tables and the modelling of the recruitment of grey seals to the Isle of May breeding population.
- Isobel Falconer gave the opening invited lecture at the Institute of Physics History of Physics Group Open Meeting *From Newton to the Free Electron Laser* held in London on 27th September. She spoke on ‘Maxwell, Thomson, and the inverse square law of electrostatics’.
- Jonathan Hickman spent a productive week in the *Basque Center for Applied Mathematics* in Bilbao where he worked with collaborators and gave an analysis seminar. He also gave analysis seminars in Edinburgh and Birmingham on ‘Fourier restriction in high dimensions’ on the 8th and 9th October respectively.
- Doug Howroyd and Han Yu attended the *Arbeitsgemeinschaft* on the Rigidity of Stationary Measure at the Mathematisches Forschungsinstitut in the Black Forest from 7-12th October.
- Louis Theran is participating in the Semester on Nonlinear Algebra at ICERM (Institute for Computational and Experimental Research in Mathematics) at Brown University from 8-26th October. He also spoke at Brown University and the University of Massachusetts. Louis also gave a talk on ‘Unlabeled generalisations of global rigidity’ at the *Rigidity and Flexibility of Geometric Structures Workshop* from 24-28th September at the Erwin Schrödinger Institute in Vienna.
- The major international conference *Fractal Geometry and Stochastics* is held in Germany every four years, and FGS6 took place from 30th September-5th October in Bad Herrenalb in the Black Forest. There were seven participants from St Andrews: Stuart Burrell, Kenneth Falconer, Jon Fraser, Jonathan Hickman, Doug Howroyd, Lawrence Lee and Han Yu, as well as several former members of the School. Jon gave the opening plenary lecture and Kenneth, Doug and Han gave short talks. Stuart submitted a poster and was awarded second prize in the poster competition out of 20 entrants (the winner was Catherine Bruce, a PhD student of our former postdoc Xiong Jin).



Stuart with his poster

Public Engagement

- On 28-29th September members of CREEM participated in a variety of the Explorathon events. Claudia Faustino, along with four other St Andrews PhD students, took part in *XX Factor*, aimed at providing children with female role models. Claudia delivered a 3 minute talk on her research at Dundee Science Centre, with the talks recorded to allow online viewing and voting, see <https://synergy.st-andrews.ac.uk/publicengagement/the-xx-factor> Charles Paxton gave a talk to Brownies and Guides in the Byre Theatre on 'Sea monsters'. Claudia Faustino, Janine Illian, Laura Marshall, Lindsay Scott-Hayward and Katherine Whyte joined up with colleagues from the Sea Mammal Research Unit and ran a research stand at the Dundee Science Centre with a focus on photo-identification and mark-recapture.

Other News

- The Annual General Meeting of the *Edinburgh Mathematical Society* took place on 12th October. There are now four School members on the General Committee: Ineke De Moortel continues as President, Martyn Quick was appointed Convener of the Editorial Board of the *Proceeding*, Jonathan Fraser became St Andrews Representative, and Sophie Huczynska became Convener of the Education Committee.

Future Events

- Andy Lynch will give his Inaugural Lecture on Wednesday 21st November in School III in St Salvator's Quad.
- Professor Antoni Malet will give a public lecture on a topic in the history of 16th and 17th century mathematics at 4pm on Wednesday 14th November.
- There will be a *Workshop on Mathematical Practices in Pre-Enlightenment Scotland and her European Networks* on 23rd-24th November, all day, both days. We will be welcoming a number of Continental European historians to this workshop. Further details <http://www.mcs.st-andrews.ac.uk/MathsHistory/mathprac2018.shtml>

Next Issue

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