

# School of Mathematics and Statistics

## Newsletter

June 2017

### *Congratulations...*

- to Helen Burgess who has been awarded a Leverhulme Early Career Fellowship to work on a project ‘Vortex Scaling and Universality Far From Equilibrium’.

### *Welcome...*

- to Andy Lynch, our new Professor in Statistics of Bioscience, jointly with the School of Medicine, who will officially start on 12th June. Andy joins us from the Cancer Research UK Cambridge Institute, University of Cambridge.

### *Farewell...*

- to our Regius Professor Igor Rivin, who has returned to the US for family reasons. Igor left after exactly two years in post, having started in May 2015. We wish him all the best for the future.
- to Angela Miguel, the CIRCA Scientific Administrator, who has left to take up a 4 year position at the University of Dundee to lecture in IT Project Management.

### *Visitors*

- Dr Alessandro Bemporad from the Observatory of Turin visited the Solar and Magnetospheric Theory Group on 29-30th May to work on the synthesis of ultraviolet and visible light images of the solar corona. This work will help the community to interpret data from the European satellite Solar Orbiter to be launched in 2019.
- Allan Clarke, from the University of Cape Town, visited CREEM for two weeks in June to work with David Borchers, funded by David’s LMS *Mentoring African Research in Mathematics* programme grant, see <https://www.lms.ac.uk/grants/mentoring-african-research-mathematics>

### *Public Engagement*

- Cornelia Oedekoven from CREEM was invited as one of two speakers during a forum discussion on science and music in her hometown in Germany. The theme of these periodically held events are people who grew up in the region and found a career abroad. See <http://www.akkurier.de/akkurier/www/artikel/57095-musik-und-wissenschaft-im-gespraech-beim-marienthaler-forum>

### *Visits and Conferences*

- The London Combinatorics Colloquia took place at Queen Mary University of London on 10th May, when Sophie Huczynsk gave a talk ‘Graph classes under homomorphic image order’, and the following day at the London School of Economics. Whilst there Peter Cameron chaired a meeting of the British Combinatorial Committee, and Nik Ruskuc also attended.
- Nik Ruskuc visited Robert Brignall at the Open University for a week to pursue their joint research project about the property of well quasi order in combinatorics. They continued their work in St Andrews following the examiners’ meetings.

- Colin Campbell, Edmund Robertson and Nayab Khalid attended the 40th Groups in Galway meeting at NUI Galway from 18-20th May. At the meeting both the forthcoming Groups St Andrews 2017 in Birmingham conference and the St Andrews algebraists, who have supported the Galway group theory meetings for many years, received honourable mentions. Despite missing the first lecture Colin and Edmund arrived in time for the first lecture! (For an explanation of this statement ask Colin or Edmund.)
- Len Thomas gave a keynote talk at the 31st Conference of the European Cetacean Society which ran from 29th April-3rd May in tranquil Middlefart, Denmark, on the non-mathematical topic ‘Does research benefit conservation?’ The subject is somewhat controversial given the power of advocacy groups to set the agenda and influence policy, and the talk generated some lively debate.
- On 12th May Rosemary Bailey spoke at the Statistics Seminar in the University of Edinburgh on ‘Hasse diagrams as a visual aid for linear models and analysis of variance’.
- Andy Wright attended the University of Dundee’s Examiner’s meeting on the 31st May in his capacity as an External Examiner. This year Dundee went paperless and used two projectors to display information as needed throughout the meeting.
- David Dritschel spoke on steadily-rotating vortices in two-dimensional fluid flows at the workshop *Local and Global Dynamics of Concentrated Vortices* in Rennes, France from 22nd-24th May.

### ***Grants***

- Len Thomas has been awarded a US\$1.2 million research contract from the *US Navy Living Marine Resources Program* to run a multi-institution project advancing methods for modelling marine mammal spatial density. Of this UK£450k of this will come to St Andrews, in part funding the return of David Miller to CREEM for the duration of the project from the end of 2017 until 2021. Staff may remember Dave from his time as an MMath student from 2004-2008 and as a postdoc at CREEM from 2011-2015.

This award is the fourth to Len from the US Navy this year: one is from the Office of Naval Research to link physiological measures of individual dolphin health to a measure of population health; another is to advise the Atlantic Fleet on their population monitoring research; the last was also from the Atlantic Fleet to participate in analysis of a large study of the behavioural response of beaked whales and pilot whales to Navy sonar.

### ***Other News***

- Mark Chaplain has been appointed co-Editor-in-Chief of the prestigious *Journal of Theoretical Biology*.
- Valentin Popov gave a sublime end-of-semester CREEM seminar on 1st June entitled ‘Analysis of CREEMinals’ cake culture’. Valentin had secretly collected data throughout 2016 on the number of ‘cake events’ at morning coffee in the Observatory, which he subjected to a series of statistical analyses. Some interesting findings emerged, but the main conclusion was that there was, on average, approximately one cake event per working day!

### ***Future Events***

- There will be a *Special Lecture* ‘Maxwell and the Mechanical Origins of Maxwell’s Equations’ by Professor Malcolm Longair, at 10.30am on 23rd June in Physics Lecture Theatre A. Professor Longair, a former Astronomer Royal for Scotland and now at the Cavendish Laboratory in Cambridge, will receive an Honorary DSc at our graduation ceremony in the afternoon, and all staff, postgraduate students and vacation students as well as graduating students and their families are warmly invited to come along to the lecture.

- The *5th Scottish PDE Colloquium* will take place from the 8-9th June 2017 in St Andrews, see <http://www.mcs.st-and.ac.uk/~spdec17/> The topics of the meeting are broad (anything related to PDEs is fair game) and the organisers Shekar Venkataraman and Tommaso Lorenzi would like to encourage all those interested to attend or even present a poster

### ***Caption Competition***

- Captions are invited for this picture taken by Nayab Khalid of the whiteboard in the common room last month. If you have any ideas for captions, send them to the Newsletter editor at [schoolnews@mcs.st-andrews.ac.uk](mailto:schoolnews@mcs.st-andrews.ac.uk) – a selection may be published in the next Newsletter.



### ***Next Issue***

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