

School of Mathematics and Statistics

Newsletter

December 2015

Congratulations to ...

- Alan Hood (Principal Investigator) and Co-Investigators, Vasilis Archintis, Ineke De Moortel, Duncan Mackay, Thomas Neukirch, Clare Parnell, Andy Wright have who been awarded an STFC Consolidated Grant of £1,332,289 for research entitled ‘Solar and Magnetospheric Magnetohydrodynamics and Plasmas: Theory and Application’. This is a continuation of their existing grant and will run from April 2016 to March 2019. The work involves the mathematical modelling of solar phenomena through the use of the equations of MHD (a system of 8 coupled, non-linear PDEs).
- Erin Goldstraw for being awarded the medal for the best MSc student in Mathematical Physics, at the November graduation at Edinburgh University. Erin is now a PhD student in our Solar Group.

Farewell

- Farewell to Marian Lazar whose three months as a Postdoctoral Research Assistant (paid from the FP7 EU SHOCK Network) in the Solar Group ends on 31st December.

Meetings Organised

- Michail Papatomas and Rob Schick organized a successful half-day workshop at the Observatory on 2nd December on the Elicitation of Expert Beliefs, with a large participation from our School and the School of Biology.
- André Python, a joint PhD student of the Schools of Mathematics and Statistics and International Relations, organised a one-day workshop ‘Challenges and Perspectives in the Modelling the Spatial Dynamics of Conflict and Terrorism, on December 3rd. It was jointly funded by the Handa Centre for the Study of Terrorism and Political Violence (HCSTPV) and CREEM, with speakers from the UK and Germany, including local speakers Len Thomas and Janine Illian.
- EPSRC-funded CoDiMa project (Colaborative Computation Project in Discrete Computational Mathematics), led by Alexander Konovalov and Steve Linton, organised the First CoDiMa Training School in Computational Discrete Mathematics at the University of Manchester on November 16-20th, see <http://www.codima.ac.uk/school2015> and this report on Storify https://storify.com/CIRCA_StAndrews/codima-2015.
- A meeting of the North British Geometric Group Theory Seminar took place in St Andrews on 16th December, with talks by Richard Webb (UCL), Brita Nucinkis (Royal Holloway) and Armando Martino (Southampton).

Conferences and Visits

- Thomas Neukirch visited the Max-Planck Institute for Solar System Research from 26-30th October to continue the collaboration with his former St Andrews Postdoc Thomas Wiegelmann on MHD equilibria and their application to data obtained by the IMAx instrument on the balloon-borne Sunrise solar observatory.
- Alexei Borissov, James Threlfall and Thomas Neukirch visited Dr Eduard Kontar at the University of Glasgow on 20th November for discussions about possible collaborations on solar flare particle acceleration.

- Thomas Neukirch made a trip to Paris from 2nd-4th December to participate in a meeting of the scientific organising committee for the 43rd European Physical Society Conference on Plasma Physics, which will be held in Leuven, Belgium, in July 2016. The meeting was to select invited speakers and there will be a further two-day meeting of the committee in March 2016 to select contributed talks and posters.
- Duncan Mackay visited the Met Office from 16-18th November to continue work on developing an operational Space Weather tool for the evolution of active regions.
- Duncan Mackay was an external examiner for two PhD theses, on 26th November at the University of Glasgow and on 11th December at University College London.
- David Borchers and Joyce Yuan made short visits to the University of Bath to work with collaborators there on a joint EPSRC grant held at both universities for a research project to develop and implement innovative methods to model spatial distribution and change from ecological survey data., see <http://www.creem.st-andrews.ac.uk:8082/ESSMod>.
- David Borchers visited the University of Cape Town for a week as part of a series of visits and workshops over two years funded by a London Mathematical Society ‘Mentoring African Research in Mathematical Sciences’ grant, see <https://www.lms.ac.uk/grants/marm-projects>
- Peter Jupp was one of 1,500 participants at the CMStatistics 2015 ‘Computational and Methodological Statistics’ Workshop held at the University of London Senate House. He spoke on ‘Probability integral transforms in directional statistics’.
- Vuksan Mijovic spent November participating in the Dynamical Systems semester at the Banach Centre of the Institute of Mathematics of the Polish Academy in Warsaw.
- St Andrews was well-represented at the joint LMS-EMS meeting ‘Mathematical Aspects of Big Data’ at ICMS in Edinburgh on 10-11th December, with Igor Rivin as a main speaker, Colva Roney-Dougal as a co-organiser and participants Colin Campbell, Nayab Khalid, Matt McDevitt, Vuksan Mijovic, Michail Papatomas, Artur Schaefer and Wilf Wilson.

Other News

- Duncan Mackay has been appointed to the International Editorial Board of the journal Solar Physics and also as a panel member to the STFC Astronomy Grants Panel (Solar Studies), both appointments running from 2016-2019.

Future Events

- In January, CIRCA will be hosting First Joint GAP-Sage Days consisting of the GAP Coding sprint (January 13-16th) and the GAP-SageMath Workshop (January 18th-22nd). (Sage Days are gatherings of people interested in SageMath, a free open-source mathematics software system.) Details are at <http://gapdays.de/gap-sage-days2016>. This event will be followed on January 25-27th by the workshop ‘Knowledge representation in mathematical software and databases’ organised by the Horizon 2020 OpenDreamKit project <http://opendreamkit.org/2015/12/08/WP6StAndrewsMeeting>.

Next Issue

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

... and a Happy Christmas to all our readers (if any!)