

School of Mathematics and Statistics Newsletter

October 2015

Welcome to ...

- Tommaso Lorenzi, new lecturer specialising in Mathematical Biology, who has now arrived in St Andrews from École Normale Supérieure de Cachan.

Recent Visitors

- Alan Cain, former St Andrews PhD student and postdoc, now at Universidade Nova de Lisboa, visited the School from 21st September to 2nd October. Rick Thomas from Leicester University visited from 21st-25th September. Alan and Rick worked with Nik Ruskuc on automatic structures in algebra and combinatorics. Alan also worked with Markus Pfeiffer on automatic word problems and homogeneous presentation, and gave a Colloquium talk. Richard Parker also visited CIRCA.
- Haakon Bakka from NTNU Trondheim visited CREEM to work on Log-Gaussian Cox processes with spatially varying second order properties.

Meetings Organised

- On 17 September, Rosemary Bailey, Peter Cameron and Leonard Soicher (QMUL) organised a Donald Preece Memorial Day at Queen Mary, University of London. Donald, a St Andrews Mathematics graduate, spent part of his career in agricultural research, specialising in Design of Experiments, and the rest in universities, where he gradually moved from Statistics to Combinatorics.

Every attender at the Memorial Day was given a postcard containing the 4x13 design using a pack of playing cards that Donald discovered in the 1980s. His original poster, made from a pack of cards, was on display (see September Newsletter).

Donald's brother Robert, from near Inverness, attended and said a few words. The other speakers had all worked with Donald, either in research or in something to do with organs (one session had an organ recital, including two pieces written by Donald). The final speaker was Ian Anderson, also a St Andrews graduate, who showed us the handwritten Latin certificate which Donald gave him on Raisin Monday.

Conferences and Research Visits

- In mid-September, Tom Kempton, Vuksan Mijovic and Sascha Troscheit attended the 'First Summer School on Dynamical Approaches in Spectral Geometry: Thermodynamic Formalism and Transfer Operator Method' at Universität Göttingen, Germany.
- The School was well-represented by present and past members of the Analysis Group at the 'Fractals and Related Fields' conference held from 20-25th September on the île de Porquerolles, a mile off the south coast of France. Kenneth Falconer was on the scientific committee and gave a plenary lecture, Casey Donovan, Tom Kempton and Sascha Troscheit also gave talks and Vuksan Mijovic presented a poster.
- Mike Todd attended a workshop on Ergodic Theory and Holomorphic Dynamics at the Erwin-Schrödinger Institute, Vienna, at which he gave an invited talk.

- Sascha Troscheit participated at the Ergodic Theory, Fractals and Groups conference in honour of Hillel Furstenberg's 80th birthday at the Israel Institute for Advanced Studies, Jerusalem from 11-15th October.
- James Mitchell, Chris Jefferson and Markus Pfeiffer attended the 3rd GAP Days in Trondheim on Quiver Algebras, from 14th-23rd September. Markus gave two talks about HPC-GAP.
- Peter Cameron is currently on a research visit to Aveiro, the 'Venice of Portugal', working with Maria Elisa Fernandes and Dimitri Leemans on regular polytopes.
- Janine Illian travelled to the West Country for a research visit to Finn Lindgren and Dan Simpson in Bath and to give a seminar in Bristol. She also visited Gothenburg to work with David Bolin and to give a seminar.
- Rosemary Bailey visited the Universidade da Beira Interior in Covilhã, Portugal, from 21-25 September. She continued her work with Dario Ferreira, Sandra Ferreira and Celia Nunes about problems that can arise in the estimation of variance components even when all the relevant matrices commute. She also gave a seminar on 'Some history of Latin squares in experiments'.
- Natacha Aguilar de Soto, who recently joined CREEM as a Marie Curie Fellow has had an active few months, giving talks at the OCEANOISE conference in Barcelona about the physiological effects of noise on marine fauna, and at the Spanish Congress of Biodiversity about foraging ecology of deep diving whales. She has also been involved in field work studying cetaceans in the Canary Islands, in collaboration with the University of La Laguna, Tenerife – for some nice pictures see <https://www.facebook.com/BIOECOMAC/photos/pcb.883891361707162/883890901707208/?type=3&permPage=1>
- Danielle Harris from CREEM visited the Bioacoustics Research Program at the Cornell Lab of Ornithology from 5-13th October. The purpose of this research visit was to work on a collaborative project, funded by the U.S. Office of Naval Research, which is investigating the use of underwater ocean gliders for marine mammal abundance estimation.
- Magda Carr and David Dritschel both gave invited talks on their research on stratified flows at the 4th Norway-Scotland Waves Symposium held at the Royal Society of Edinburgh on 12-13th October. This meeting brought many leading researchers from around the world together with the Norwegian and Scottish research communities.
- Ineke De Moortel visited the High Altitude Observatory in Boulder to work with Dr Scott MacIntosh on the observations of propagating perturbations in the solar atmosphere.

Other News

- CIRCA (Centre for Interdisciplinary Research in Computational Algebra) has now a Twitter account, run by Alexander Konovalov: https://twitter.com/CIRCA_StAndrews. You may find most important tweets from past weeks at https://storify.com/CIRCA_StAndrews

Future Events

- The Schools of Mathematics and Statistics and Physics and Astronomy, will be hosting a public lecture on Friday 27 November entitled 'Planets and Pulsations: The New Keplerian Revolution' by Professor Don Kurtz, as part of the International Year of Light. The talk will present results from the Kepler Space Mission on the discovery of exo-planets, with over 4600 planets orbiting other stars now detected. The talk will introduce the concepts of asteroseismology, determining the properties of stars from an analysis of their oscillations. This exciting presentation is aimed at the public and in particular secondary school pupils.

... and some major meetings are being organised in the more distant future:

- The next GAP Days, which will be a joint event between GAP and Sage, will take place in St Andrews in January 2016, see <http://gapdays.de/gap-sage-days2016/>
- ‘Young Researchers in Mathematics 2016’, primarily intended for research students, will be held in St Andrews from 1st-4th August 2016.
- A conference ‘Mathematical Biography - a MacTutor Celebration’ will be held in St Andrews, 16-17th September 2016, in collaboration with the British Society for the History of Mathematics <http://www.bshh.ac.uk/events/mathematical-biography-celebration-mactutor>
- ‘Groups St Andrews 2017’ will be held in Birmingham from 5-13th August 2017. This is the 10th Groups St Andrews meeting, held every four years since 1981, which has become the foremost regular group theory conference in the world, see <http://www.groupsstandrews.org/>
- The BAMC ‘British Applied Mathematics Colloquium’ will be held in St Andrews in 2018, from 26-29th March.
- The BMC ‘British Mathematics Colloquium’ will be held in St Andrews in 2018, from 11-14th June.

Next Issue

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