Maxwell Institute Graduate School in Analysis and its Applications - MIGSAA
An EPSRC/SFC Centre for Doctoral Training

Welcome to the 7th MIGSAA Newsletter, keeping you informed about our students, research and all the other things that happen at MIGSAA.

In This Issue

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- Student led events
- Careers
- Successes
- Maths is like baking a cake?
- Upcoming news

Links

MIGSAA Recruitment Day 19th December
http://www.maxwell.ac.uk/migsaa/apply-now

Annual Student Colloquium
https://tinyurl.com/y8e5umtr

Industrial Sandpit
https://tinyurl.com/ybbbj955j

Weak Null Condition and Kaluza-Klein Spacetimes
arXiv:1706.00026

Maths is hilarious, right?
http://tinyurl.com/y9n3gall

Industry Projects & Workshops

A last minute source of industry project funding from EPSRC’s National Productivity Investment Fund allowed us to recruit an additional 3 students to the 2017 cohort, taking the full cohort up to 16. The 3 industry students were recruited to specific industry related projects located at Heriot-Watt University and will work on those from the outset, in conjunction with the usual MIGSAA programme of SMSTC and Advanced MIGSAA courses.

MIGSAA supported a summer workshop on Multiscale Problems in Nonlinear PDEs which ran from 5th - 7th September 2017 in ICMS, Central Edinburgh. Guest lecturers were: Lubomir Banas (University of Bielefeld, Germany), Miroslav Buliček (Charles University Prague) and Christoph Ortner (University of Warwick). The event was organised by Dominic Breit and Markus Schmuck (Heriot-Watt) and Ben Goddard (Edinburgh).

Student Led Annual Colloquium 2017

We were fortunate to welcome an exceptionally interesting trio of guests to the 2017 student led annual Colloquium, who gave outstanding lectures:

**Melanie Rupflin** from University of Oxford; Geometric Flows and Minimal Surfaces

**Sara Merino-Aceituno** from Imperial College London; Deriving Continuum Equations from Particle Models using Kinetic Theory: Applications to Biology

**Enno Lenzmann** from Universität Basel; Nonlocality, Criticality, and Complete Integrability

A poster display and wine reception rounded off the afternoon.

A huge thank you to student organisers: Lukas Eigentler and William Trenberth.

Top Enno and Melanie review the posters, Sara Merino-Aceituno middle and Melanie Rupflin below.
Careers
As MIGSAA cohort 2014 embark on their final year, we put on a Careers event which included talks by a business professional, academics and a past student currently in industry. Norbeto Laghi Senior Quantitative Analyst at Tindeco Financial Services AG gave an overview of his work at a leading financial company, in contrast (or perhaps not so different), Maxwell Institute staff spoke on academic career experiences. Careers Consultants offered their expertise and advised students on a range of support services in this vital year. Some first year students were present too showing good sense in structuring their progression from the outset!

Congratulations!
Zoe Wyatt has posted a preprint, "The Weak Null Condition and Kaluza-Klein Spacetimes" arXiv:1706.00026. She also gave a talk about it at the Warwick-Imperial-Cambridge junior research seminar on Friday November 3. Busy as ever taking Mathematics out to the public in all manner of ways, Zoe explained the essence of general relativity as a slick stand up routine at Edinburgh Bright club. https://www.youtube.com/watch?v=cJzbD1qR4b4

MIGSAA Recruitment Day
19th December
We are now recruiting for women and men who have, or expect to shortly have, a very good undergraduate degree (at least a UK 2:1 honours degree, or its international equivalent), in mathematics or a closely related subject.

Recruitment Day will take place on 19th December in the International Centre for Mathematical Sciences, 15 South College Street, EH8 9AA. Application deadline is 1st December for this Recruitment Day event. Interviews will be held for invited candidates. Use the link on the front page to start your application!

Upcoming Events
- MIGSAA’s 4th Industrial Sandpit takes place on 24 November.
- We always look forward to first year students’ Taster Project Presentations which will be on 15th December this year. It’s a chance to catch up with their progress, with colleagues otherwise busy with teaching and have some festive wine and mince pies!

Thanks for Reading, Tony Carbery MIGSAA Director