

# Maxwell Institute Graduate School in Analysis and its Applications - MIGSAA

## An EPSRC/SFC Centre for Doctoral Training



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

Newsletter Nov 2017

Issue 7

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- Successes
- Maths is like baking a cake?
- Upcoming news

### Links

**MIGSAA Recruitment Day 19<sup>th</sup> December**

<http://www.maxwell.ac.uk/migsaa/apply-now>

**Annual Student Colloquium**

<https://tinyurl.com/y8e5umtr>

**Industrial Sandpit**

<https://tinyurl.com/ybbb955j>

**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 5<sup>th</sup> - 7<sup>th</sup> 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 19<sup>th</sup> 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 19<sup>th</sup> December in the International Centre for Mathematical Sciences, 15 South College Street, EH8 9AA. Application deadline is 1<sup>st</sup> December for this Recruitment Day event. Interviews will be held for invited candidates. Use the link on the front page to start your application!

### Contact Us

<http://www.maxwell.ac.uk/migsaa>

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## Upcoming Events



- ❖ MIGSAA's 4<sup>th</sup> Industrial Sandpit takes place on 24 November.
- ❖ We always look forward to first year students' Taster Project Presentations which will be on 15<sup>th</sup> 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**