**EPSRC Centre for Doctoral Training in Statistical Applied Mathematics at Bath** 

# SAMBa Newsletter

Issue 3, September 2015





### ITT2 injects energy into mathematical problems

In June, over 60 students, academics, and industrial representatives gathered in Bath for our second Integrative Think Tank. Our partners for ITT2 were EDF (Électricité de France) and Amec Foster Wheeler. The ITT had a general theme of energy and involved expertise from across the department including statistics, probability, numerical analysis, and continuum dynamics. In addition, we were pleased to welcome students and staff from the EPSRC-funded CDT at the London School of Geometry and Number Theory, who added a different dimension to the discussions, whilst in turn being trained in working with industrial problems.

It was a week of hard work, numerous discussions, and most importantly lots of enthusiasm. The ITT resulted in some superb outcomes, in particular a significant investment in SAMBa from AmecFW, who are making a long-term commitment to funding

studentships. This is going to give us tremendous leverage in future activities and we are already planning lots of them! With EDF we are also exploring studentship and postdoc projects.









### **Using Balena**

The University's new High Performance Computing system, Balena is now up and running. Thanks to funding from EPSRC, awarded to SAMBa, our students and staff have priority access to the system in order to support their research projects. Matt Thomas, one of our students has already been using the system to model atmospheric data across the world.

#### **Summer Interns success**

We have had 10 undergraduate interns working in the department over the summer. Four of these were funded by the London Mathematical Society and the rest were supported by SAMBa and the Bath Institute for Mathematical Innovation. The interns undertook research across the remit of the department and SAMBa and we hope many of them will continue into postgraduate research.

Our 1st SAMBa cohort have chosen their PhD projects. Find out more about them here:

http://www.bath.ac.uk/math-sci/postgraduate/samba/our-research/





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### Maths meets in Mongolia

SAMBa co-Director, Andreas Kyprianou, coordinated a twoweek long workshop at the National University of Mongolia over the summer. Leading mathematicians from all over the world attended to give lectures, mini symposia and network with students. Over 100 people participated each

day and the event exceeded all expectations. The successful repercussions will be felt for many years to come, as Mongolia begins to rebuild its mathematical expertise following the fall of communism.





### Welcoming new students to SAMBa

In June we held a welcome event for SAMBa students joining us in 2015. The new students had a chance to meet staff and current PhD students in the department, and everyone gathered together for a barbecue in the afternoon. It was wonderful to get everyone involved in SAMBa together – over 60 people in all.

The 15 members of the 2015 cohort join the department in September. In addition, we welcome two students who are associated with SAMBa through their PhD projects, which were generated by our 1st ITT.

## **BUC series of lectures to deliver training** to PhD students in Bath and Mexico

Following our visit to Mexico in April, we secured two awards to further grow our links with the institutions of Universidad Autónoma de México (UNAM) and Centro de Investigación en Matemáticas (CIMAT). An £81K Newton Fellowship, has been awarded to Juan Carlos Pardo (CIMAT) and Andreas Kyprianou (SAMBa), enabling them to continue their fruitful research partnership. Gavin Shaddick (SAMBa) has been awarded £12K from the University's International Research Funding Scheme. Both funds will contribute towards a series of lectures run between Bath, UNAM and CIMAT (BUC). These will be partially delivered by SAMBa students, who will train others in scientific computing skills and deliver presentations and discussions on their research.

### Taking the SAMBa experience to Brazil

In September, Paul Milewski, SAMBa co-Director, participated in the first Brazilian Study Group with Industry. This was held at USP, São Carlos. Paul's participation was funded through the University of Bath's International Office. The focus of the event was on image processing, optimisation, and composite materials. Organisers in São Carlos attended SAMBa's 1st ITT in January and used their experience from our event to develop the Study Group.

We've been visiting: British Council, London · EPSRC, Swindon · IMPA, Brazil
Imperial College London · Institut d'Études Scientifiques de Cargèse
Loughborough University · National University of Mongolia, Ulan Bator
Peking University · Radon Institute, Linz · University College London, UK
Università della Calabria · University of Liverpool · University of Manchester
University of Mannheim · University of Oxford · University of São Paolo

Coming up...

**22nd Sep** Cohort 2 arrives · **30th Sep** First cohort MRes transfer day · **7th Oct** Bath CDT student event **November** BUC1, CIMAT, Mexico · **November** MATLAB training event · **25th-29th Jan** ITT3

For more details on all these stories and to see how you can get involved, visit the SAMBa website: bath.ac.uk/samba



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