

# SAMBa Newsletter

Issue 4, January 2016



UNIVERSITY OF  
**BATH**



## Growing our student numbers

In September, our second cohort of students joined SAMBa. We now have a total of 20 SAMBa students as well as two additional students who work closely with the cohort, undertaking PhD projects funded by our partners BT and DNV GL. Our students complement the department's already thriving PhD community. Recruitment is already well underway for 2016/17 and we are looking forward to growing the cohort even more.

★ Look out for the SAMBa student blog, coming soon!

### Coming up...

- 25th - 29th Jan ITT3
- 3rd Feb Where's the Maths?
- 22nd-24th Feb BUC2
- March Inter-CDT pub quiz

## Welcome back Sam!

We'd especially like to welcome back Sam, who originally started SAMBa in 2014. In December 2014, Sam was involved in a terrible accident which means he now uses a wheelchair. In inspiring fashion, he has already adapted to his new wheels and returned to SAMBa in 2015. Communication with Sam was made possible whilst he was recuperating through the wonderful charity, Special Effect, who quickly provided him with technology that connected him to email and the internet. We raised £255 for [Special Effect](#) through [Flowers for Turing](#) in June and we are planning more fundraising for them this year. In the meantime, a subset of the SAMBa team swam the equivalent of the channel crossing between Dover and Calais in Autumn 2015, raising over £1500 for [Aspire](#), who support people with spinal injuries.



Website: [www.bath.ac.uk/samba](http://www.bath.ac.uk/samba)  
Twitter: @SAMBa\_CDT  
Email: [samba@bath.ac.uk](mailto:samba@bath.ac.uk)



## Visiting Professor award for Esteban Tabak

Professor Esteban Tabak (New York University), who is a member of the SAMBa Advisory and Monitoring Board, has been awarded the University of Bath's David Parkin visiting professorship for 2015-16. Esteban has already visited the University and Department twice this year and we look forward to welcoming him back to deliver a public lecture on his research on 18th March.

## Mathworks

In November 2015, SAMBa funded a two day training event on the high level use of MATLAB and its interface with HPC. The training was delivered by MathWorks and additional places were made available to staff and students across the University. The event received excellent feedback and we plan to fund the course again next year.

## SAMBa students put the bang into BUC in Mexico



In November, two SAMBa students travelled to CIMAT in Mexico to help deliver the first BUC (Bath-UNAM-CIMAT) workshop. These workshops are funded by the institutions themselves and the Newton Institute. Dorka Fekete and Matt Thomas from SAMBa, along with Pite Satitkanitkul and Bati Şengül, a PhD and postdoc from the department of mathematical sciences, ran a series of training courses and gave lectures on their research. These were hugely successful with 18 students taking part in the series of labs and many more attending the lectures. BUC1 focussed on the use of Big Data and Statistics in Environmental Research and was led by Gavin Shaddick from Bath and Jim Zidek from UBC, Vancouver. BUC2 is taking place in February in UNAM and will focus on fitting complex models to big data, led by Gavin Shaddick, Dan Simpson and Karim Anaya-Izquierdo from Bath. Matt and Dorka will be returning to run further training courses and will be joined by Alice Davis, a Bath PhD student.



## SAMBa students deliver ALEA workshop

The third of the ALEA Young Researchers' Workshop series was held at University of Bath in December 2015. The event brought together PhD students and postdoc researchers working on discrete random structures. The 32 participants, mostly PhD students arrived from five countries. Apart from two mini-courses and two invited talks, attendees had the

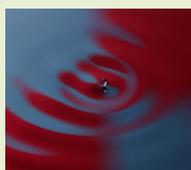
opportunity to present some open problems and engage in discussions afterwards. These sessions were a huge success and led to solutions to two problems. The event was funded by SAMBa and was co-organised by SAMBa student Dorka Fekete. SAMBa student Marcus Kaiser delivered a mini course in Interacting Particle Systems at the workshop itself.

## Building collaborations in Chile

In January 2016, Gavin Shaddick and student Millie Jobling visited the Centre for Mathematical Modelling in Chile to run a short course on statistical analysis of big data in the power industry. This was attended by students and staff from the CMM and will form the basis of further collaborations between the CMM, SAMBa and the University of Bath.



## Funding to study bouncing droplets



Congratulations SAMBa co-Director Paul Milewski, who has been awarded £316,872 by EPSRC to work with UCL, IMPA (Brazil) and MIT (USA) on a project entitled:

*Modelling, computation and analysis of droplets guided by Faraday waves: a complex system with macroscopic quantum analogies.*



**We've been visiting:** Imperial College London · Loughborough University · University College London · University of Manchester · University of Oxford · University of São Paulo · UNAM, Mexico City · CIMAT, Guanajuato · CMM, Santiago · ZheJiang Uni, Hangzhou · World Health Organisation, Geneva · University of British Columbia, Vancouver · Met Office, Exeter · Astra Zeneca, Alderley Edge · The English Channel (virtually) · Lille University of Science and Technology · University of Cyprus · MIT, Boston · University of Limerick · University of Edinburgh · University of Amsterdam · Shanghai Tech

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