

SAMBa Newsletter

Issue 8, June 2017



ITT5 effectively formulates more research ideas

In January, we held our 5th Integrative Think Tank with partners Roche and Syngenta and a theme of chemical dispersion and effectiveness. Students worked on formulating mathematical approaches to problems ranging from tumour growth to seed coating over one week. The ITT has already resulted in three PhD research projects, two of which are part funded by Syngenta and one supported by Roche.



Participants included two students from the EPSRC CDT in Quantum Engineering at the University of Bristol who have since run their own successful ITT-like event.

Matt Lee, a first year SAMBa student said: "The ITT was personally very beneficial. I had a good number of conversations about our model with a partner from Syngenta, and it was great to see what they were looking for and what they thought of our model. Having them involved really helped to understand the problem and see the route to developing a solution."

Our next ITT takes place at the beginning of June with partners from Schlumberger and the department of Chemical Engineering from the University of Bath.

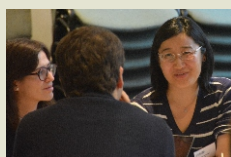
Fourth cohort recruited



We have recruited 10 students to SAMBa to start in 2017, alongside 2 SAMBa aligned students who will begin working on specific research that is linked to the SAMBa remit, and who will have priority access to SAMBa training opportunities. Cohort 4 will add experience in scouting, basketball, cello playing, and poker to our talented student body, as well as expanding our statistical applied mathematics knowledge still further.

Coming up...

- 31st May - 2nd Jun** BUC 8
- 5th - 9th Jun** SAMBa 6th Integrative Think Tank
- 12th Jun** 6th Annual Bath University HPC Symposium
- 20th - 21st Jun** SAMBa Summer Conference
- 18th - 21st Jul** BUC 9
- 21st Aug - 1st Sep** BMS-SAMBa Summer School on "Probabilistic and Statistical Methods for Networks"
- 29th Aug - 1st Sep** CliMathNet Conference, Reading
- 11th - 15th Sep** SciCADE International Conference on Scientific Computation and Differential Equations
- 4th & 11th Oct** Cohort 3 MRes Transfer Days



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Engineering and Physical Sciences
 Research Council

The BUCs keep rolling in

After a short hiatus over the winter, the BUC (Bath-UNAM-CIMAT) series is back in full flow, with BUC6 having taken place in March, BUC7 in May and BUCs 8, 9 and 10 happening in quick succession from June to early August. BUC brings together researchers, particularly early career academics and PhD students, to initiate and develop high quality research collaborations. The remit of the workshops is expanding into analysis, continuum mechanics, and math biology, with the original themes of probability and statistics still going strong.



BUC6 covered topics from operator theory, quantum mechanics, materials and wave propagation. It consisted of a school in Mexico City and a workshop in Merida, and was well attended with lots of ideas for joint research developed.

The BUC team have also been awarded a 4th Newton Fund grant, this time to Luis Silva (UNAM) and Kirill Cherednichenko (Bath). This will build on research ideas established at earlier BUCs and will help to support future workshops.

We held our second 'Where's the Maths?' event in March where 15 speakers presented problems ranging from analysing mixed microbial cultures in waste water to modelling of optical fibres. The format involves quick fire, 3 minute presentations to mathematical sciences academics and students, with no questions, followed by networking. The after party continued for a few hours afterwards, there have already been follow up discussions, and we expect that research collaborations will be emerging in the future.



Register for our 1st SAMBa conference on 21st and 22nd June featuring talks from external speakers and our students. The conference is sponsored by our industrial partners Astra Zeneca, BT, GKN, and Schlumberger.

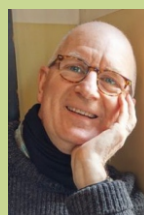


In January, a small group of people from the department of Mathematical Sciences visited Instituto Nacional de Matemática Pura e Aplicada (IMPA) in Rio de Janeiro, funded by the University of Bath's

International Relations Office. The aim was to drive collaborative research, particularly in applied mathematics and probability. There was a lot of fruitful discussion, whilst watching monkeys from the windows, and hopefully many future joint projects to come.

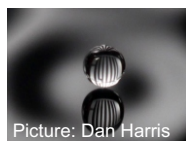


We were sad to say goodbye to one of our co-Directors, Gavin Shaddick, in April. Gavin has moved to the University of Exeter but we are still looking forward to working with him closely through SAMBa and have lots of activities already planned.



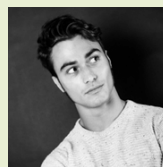
Congratulations go to Ivan Graham from the department of Mathematical Sciences who, with John MacKenzie, from University of Strathclyde, has been elected as the new President and Vice President of the SIAM UKIE section for the next two years.

Our co-Director, Paul Milewski, has been visiting professor at the Institute for Computation and Experimental Research Mathematics at Brown University in Providence, USA this semester. During this time, Paul has successfully



Picture: Dan Harris

co-organised two workshops within the theme of singularities and waves in incompressible fluids, which were attended by participants from across the world.



Congratulations to our cohort 2 student, Gianluca Detommaso, who has won a place on the Turing's Enrichment Programme. Gianluca will spend a year based at the Turing, enhancing links between them and the University of Bath and working with people from a wide range of backgrounds to deliver impactful research.



We've been visiting: Brown University, Providence · Buckingham Palace · Cabinet Office, London · Chinese National University, Beijing · CIMAT, Guanajuato · Courant Institute of Mathematical Sciences, New York · EPSRC, Swindon · Houses of Parliament, London · IMPA, Rio de Janeiro · Imperial College London, · Lake Como · MIT, Boston · PSI, London · UNAM, Mexico City · University of British Columbia, Vancouver · University of New York · University of Melbourne · UNSW, Sydney

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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