

# SAMBa Newsletter

Issue 13, February 2019



## SAMBa secures funding for more PhD students

We are very excited to have been awarded funding from the Engineering and Physical Sciences Research Council (EPSRC), supported by the University of Bath and multiple international and industrial partners, to continue SAMBa for another 8 years, bringing in an expected 90 more PhD students over five in intakes. We are committed to continuing to ensure the cohort is as diverse as possible in order to deliver the most exciting and impactful research outputs.

The additional funding for SAMBa will allow us to expand our international reach, exploring collaborations in Mexico, Chile, Brazil, China, Germany, and the Netherlands. We have

grown our base of industry partners substantially and, as well as providing us with interesting new challenges which will form the basis of jointly owned research, they will deliver specialist training to our students in a variety of foundational skills such as software sustainability, responsible innovation, and data curation. The support and commitment from staff within the Department of Mathematical Sciences has been invaluable in the success of SAMBa to date and will continue to be the foundation from which we deliver SAMBa. We would like to thank everyone who has helped us get to this point, and who we will be working with over the coming years.



On 22 January, we launched the University of Bath's Reimagining Recruitment project, which brings together a team from SAMBa, with researchers from the Department of Psychology.

Led by Tim Rogers, the aim is to change the culture of academic recruitment in science, technology, engineering and mathematics (STEM). The project will run for two years,

funded by EPSRC's Inclusion Matters scheme and builds on the successful ITT model through running a series of collaborative incubators in different research disciplines across the UK. These will enable the Psychology research team to explore what aspects of the collaborative problem formulation approach work well from an inclusion perspective. Their findings will be translated into policy recommendations in collaboration with HR to support a more diverse academic recruitment.



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## Congratulations to...

**Matthew Parkinson** who passed his PhD viva.

**Paul Milewski** who is Bath partner on a successful World Bank proposal to continue collaboration with Paraguay on data science training and research.

**Melina Freitag** who has been elected Vice Chair of the SIAM Activity Group on Linear Algebra.

**Andreas Kyprianou**, **Tony Shardlow** and **Susie Douglas** who successfully applied for funding with the Institute of Policy Research to explore policy interventions to reduce health impact of air pollution in Ulaanbaatar.

## ITT9 avoids catastrophe to deliver the perfect ice cream

Our 9<sup>th</sup> Integrative Think Tank was our biggest yet with 46 students, 19 academics from Bath, 4 academics from our Mexican collaborators, and 8 representatives from the partner organisations of Willis Towers Watson and Diamond Light Source all participating. We explored the challenges of the modelling and prediction of hurricanes, volcanoes, and drought, and formulated ideas for better imaging analysis of particle velocities and different phases of ice cream. New research ideas are already being pursued through group reading courses and scoping for potential PhD projects.



In January, Andreas Kyprianou, Alex Cox and Susie Douglas attended the 12th Solución de Problemas Industriales held at CIMAT in Guanajuato, Mexico. Multiple industrial partners presented problems from keeping bakery products free from mould (Bimbo) to installing solar panels effectively (HEBA). The event was an impressive introduction to Mexican industrial-academic collaborations and will provide the foundation for our first Mexico-based ITT taking place in August this year. Four representatives from CIMAT and UNAM, based in Mexico City, also participated in ITT9 to gain experience of the ITT model. We are really looking forward to delivering an exciting event between Bath, CIMAT and UNAM in the summer.



## Coming up ...

- 20<sup>th</sup> Feb** Where's the Maths?
- 3<sup>rd</sup> Apr** Careers Day for Maths PhDs
- 24<sup>th</sup> - 26<sup>th</sup> Apr** British Applied Mathematics Colloquium
- 29<sup>th</sup> Apr - 3<sup>rd</sup> May** Probability meets Biology: Collaborative Incubator
- 13<sup>th</sup> - 17<sup>th</sup> May** Data sprint/ITT in Ulaanbaatar, Mongolia
- 10<sup>th</sup> - 14<sup>th</sup> Jun** ITT10
- 1<sup>st</sup> - 5<sup>th</sup> Jul** Random Structures summer school
- 8<sup>th</sup> - 9<sup>th</sup> Jul** 3<sup>rd</sup> SAMBa conference
- 11<sup>th</sup> - 22<sup>nd</sup> Jul** 60<sup>th</sup> International Mathematical Olympiad
- 5<sup>th</sup> - 9<sup>th</sup> Aug** ITT in Guanajuato, Mexico



Our 5<sup>th</sup> cohort of students arrived from the UK, Ireland, Germany, Italy, Paraguay, Nigeria, Mexico, and Hungary in October. They are already proving a great addition to the cohort and have impressed us with their presentation skills, baking genius, sporting talents, and statistical applied mathematics knowledge. Over the next few months they'll be deciding on their research projects, ready to begin the PhD phase of SAMBa.



**We've been visiting:** Beijing Institute of Technology · CIMAT (Guanajuato) · Dublin City University · Institut für Nachrichtentechnik at Technische Universität (Braunschweig) · The Oval Cricket Ground · Sanya (China) · University College London · Universidad de Concepción · University of Limerick · University of Mannheim · Willis Towers Watson (London) · Wroclaw University of Science and Technology

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



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