

SAMBa Newsletter

Issue 16, July 2020



New ways of working for SAMBa

It's been a different few months for SAMBa – we had planned to welcome cohort 7, get stuck in to problem formulation at ITT12, support cohort 6 in meeting research supervisors, deliver confirmation and final vivas, and enjoy nice walks around campus. Instead we have been working remotely and learning how to have mathematical discussions online as well as drinking coffee, having quizzes, running events, and enabling cohort bonding over various video conferencing facilities. People have been amazing: adapting research practices, supporting each other in work and well-being, organising socials, and producing great results and impact. We are super proud of our wonderful cohort of students and staff and want to say a big thank you to everyone.

Escaping lockdown style

We brought students past, present, and future together in June. They joined forces as small teams to escape from virtual rooms full of puzzles. It was a lot of fun – even if not everyone got out in time – and congratulations to Margaret, Rosa, Carmen, and Dan who made it out with the most points.



Our ongoing research collaboration into the policy solutions for air pollution in Ulaanbaatar was enhanced by extended visits from Selenge Tsend-Ayush (National University of Mongolia) and Khugi Dashdorf (UNICEF Mongolia). Working with statisticians and SAMBa students, they analysed data sets to answer policy-related research questions.

Coming up ...

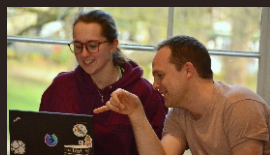
- 7th - 8th Jul SAMBa conference
- 20th - 24th Jul PDE and randomness summer school
- 3rd - 8th Aug Mathematics of Machine Learning
- 7th - 11th Sep ITT12 with Novartis and Rolls Royce
- 30th Sep & 7th Oct MRes transfer days, cohort 6

Explore the mathematics of COVID-19 with these online lectures provided by the department of Mathematical Sciences at Bath



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Making waves at ITT11

Our 11th Integrative Think Tank was delivered in partnership with the multinational telecoms company BT, and the University's Centre for Photonics and Photonic Materials. Challenges discussed included: optimising multi-layer feedback methods in networks; leveraging customer relationships for net promoter score prediction; understanding surface roughness scattering and loss along fibres; and accurately measuring distances with multi-wavelength interferometry. There were a lot of exciting ideas generated that we will take forward as PhD projects, interdisciplinary research projects, reading courses, and grant proposals.

Congratulations to...

Gianluca Detommaso, Kgomotso Morupisi, Robbie Peck, Adwaye Rambojun, Anna Senkevich, Sebastian Stolze, and Matt Thomas for passing PhD vivas.

Piotr Morawiecki, Tina Zhou, Laura Oporto, and Dan Burrows who won the NERC COVID-19 Hackathon on Air Quality.

Karsten Matthias and Veronique Fischer for successful Leverhulme Trust applications.

Mathew Penrose on winning funding from EPSRC.

Silvia Gazzola and Sergey Dolgov for being awarded funding from Diamond Light Source for a PhD project.

Tosin Babasola for being invited to the 8th Heidelberg Laureate Forum.

Michele Firmo for receiving the Bath award.

Margaret Duff and Yvonne Krumbeck for University Doctoral Recognition awards.

Julian Padgett, Ramses Mena, and Susie Douglas for securing funding to deliver an AI-focused ITT in Mexico.



Welcome to Cohort 7

Our 7th cohort of students join us in September. They join us from Germany, Ireland, China, Mexico, Brazil, Greece, and the UK and bring experience in trampolining, orienteering, piano and trumpet playing, musical theatre, and ultimate frisbee. Many will spend their first year exploring the breadth and depth of statistical applied mathematics before moving to research projects, whilst SAMBa aligned students will begin research immediately on projects related to our remit.

We held a "Where's the Maths?" event centred around the impact of COVID-19, with 10 speakers from departments across the University presenting topics ranging from measuring the impact on community drugs teams, to behavioural economics, to lab-on-a-chip devices. Presenters described their research and asked for collaboration in understanding and developing the necessary mathematical ideas.

COVID-19 and Nicotine/tobacco

- Several studies showing relationships between COVID-19 and tobacco/nicotine use.
- Evidence emerging with papers coming at different conclusions.
- 'Nicotine protects' seems to have had more impact.
- French govt. had to halt spike in Nicotine sales.
- E.g. [A nicotine hypothesis for Covid-19 with preventive and therapeutic implications](#) 62 News, 6 Blogs, 479 Tweets
- Can we see the 'reach' of these studies using twitter, news and blogs?
- Altmetrics data: Tweets, News, Blogs citing the study.



Diversity of our student cohort, our staff, and our partners is vital to delivering creative and novel approaches to mathematical challenges. We celebrate the diversity within SAMBa, and will continue to deliver an inclusive environment, learning from the experience of staff and students. We strive to question ourselves and others in order to do this effectively. #BlackLivesMatter

We've been visiting: Teams, Zoom, Skype, Messenger, Hangouts, House Party, Slack

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



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