



SAMBa Summer Conference
University of Bath
20th - 21st June 2017

Tuesday 20th June

11:00 Arrival

COFFEE

11:30 - 13:00 SESSION 1 - UNCERTAINTY QUANTIFICATION

Sponsored by Schlumberger

Wolfson Lecture Theatre, 4 West 1.7. Chair: Benjamin Robinson

Owen Pembery (SAMBa) - *Uncertainty Quantification for the Helmholtz Equation Using Preconditioning*

Marcus Kaiser (SAMBa) - *Why do Irreversible Processes Converge Faster to Equilibrium than Reversible Ones?*

Colin Morice (Hadley Centre, Met Office) - *Reconstruction of Daily Air Temperature Variations Globally Since the Mid 19th Century*

LUNCH

14:00 - 15:30 SESSION 2 - MATHEMATICS & STATISTICS IN HEALTH

Sponsored by AstraZeneca

Wolfson Lecture Theatre, 4 West 1.7. Chair: Aoibheann Brady

Matt Thomas (SAMBa) - *Global Estimation of Air Quality*

Robbie Peck (SAMBa) - *Bayesian Decision Theory with applications to Experimental Design*

Richie Gill (Department of Mechanical Engineering, University of Bath) - *In Silico Clinical Trials for Musculo-skeletal Therapy Development*

COFFEE

16:00 - 17:00 POSTER SESSION

4 West Atrium

Posters and poster board numbers are listed on the reverse of this programme.

WINE RECEPTION

18:30 Dinner at Aqua Restaurant, 88 Walcot Street, Bath. BA1 5BD.

Abstracts

See the conference webpage for abstracts: people.bath.ac.uk/br275/SAMBa/summer-conference-2017/

Student Posters

All posters are displayed in the 4 West Level 1 Atrium.
Numbers below correspond to poster board numbers.

1. **Jack Betteridge** - *Higher Order Discontinuous Galerkin Methods for Numerical Weather Prediction* (e-Poster)
2. **Emiko Dupont** - *Statistical Modelling of Time Dependence in Peak River Flows*
3. **Matt Durey** - *Droplets Walking on a Vibrating Fluid Bath*
4. **Dorka Fekete** - *Connection of Skeletal and Spine Decompositions for Subcritical Continuous-State Branching Processes*
5. **Emma Horton** - *Stochastic Analysis of the Neutron Transport Equation*
6. **Kgomotso Susan Morupisi** - *Ice Age Model of Climate Change: PP04 Model*
7. **Robbie Peck** - *Phase II/III Programs: Optimal Setup and Decision Making*
8. **Adwaye Rambojun** - *Segmentation of Psoriatic Arthritis X-rays*
9. **Benjamin Robinson** - *Stochastic Optimal Control Problems Related to Martingale Optimal Transport*
10. **Shaerdan Shataer** - *Imaging the Electric Activity of the Brain*
11. **Cameron Smith** - *The Auxiliary Region Method for Reaction-Diffusion Systems*
12. **Sebastian Stolze** - *Using Bayesian Networks for Quantitative Risk Analysis*
13. **Hayley Wragg** - *The Method of Geometric Optics and the Application to High-Frequency Wave Propagation*

Sponsors

We would like to thank our industrial sponsors who helped to make this event possible.



This conference is also supported by the EPSRC Centre for Doctoral Training in Statistical Applied Mathematics at Bath (SAMBa), under the project EP/L015684/1.

Thank you very much for attending the conference today.

For any feedback or future communication, feel free to contact the organisers Benjamin Robinson (B.A.Robinson@bath.ac.uk) and Adwaye Rambojun (A.M.Rambojun@bath.ac.uk).

The programme continues on Wednesday at 09:00. Hope to see you there!