



# Conference on Modern Topics in Stochastic Analysis and Applications

in honour of Terry Lyons' 70th birthday

## Speakers

- Alison Etheridge (University of Oxford)
- Adeline Fermanian (Califrais, Paris)
- Andrew Stuart (Caltech)
- Blanka Horvarth (University of Oxford)
- Ben Hambly (University of Oxford)
- Christian Bayer (WIAS Berlin)
- David Nualart (University of Kansas)
- Felix Otto (Max Planck Institute)
- Gérard Ben Arous (New York University)
- Hans Buehler (XTX Markets)
- Harald Oberhauser (University of Oxford)
- Horatio Boedihardjo (University of Warwick)
- Josef Teichmann (ETH Zurich)
- Martin Hairer (EPFL and Imperial)
- Maud Lemercier (University of Oxford)
- Michael Röckner (Bielefeld University)
- Ofer Zeitouni (Weizmann Institute)
- Paola Arruebarrena (Imperial College)
- Peter Friz (TU and WIAS Berlin)
- Rene Carmona (Princeton University)
- Salvador Ortiz-Latorre (University of Oslo)
- Sandy Davie (University of Edinburgh)

- Syoiti Ninomiya (Tokyo Institute of Technology)
- Yves Le Jan (NYU Abu Dhabi and NYU Shanghai)
- Zhongmin Qian (University of Oxford)

Stochastic Analysis provides tools for understanding dynamical systems that evolve under the influence of random noise. Over the last 30 years, it has become one of the most active areas in mathematics, with UK based mathematicians and practitioners pioneering its developments.

Perhaps the most influential contribution has been Terry Lyons' theory of rough paths, a mathematical language to describe the effects a stream has when interacting with non-linear dynamical systems. It has had a fundamental impact on the theory of SDEs as well as the development of Hairer's Fields medal winning work on regularity structures for SPDEs. More recently, rough path theory has led to breakthroughs in the design of state-of-the-art machine learning algorithms for sequential data.

**22-26 April 2024**

340, Huxley Building  
South Kensington Campus  
Imperial College London

Open to all  
Registration  
fee: £30 GBP

## Organisers

Dan Crisan (Imperial), Christian Litterer (York)  
Thomas Cass (Imperial), James Foster (Bath)  
Cristopher Salvi (Imperial), Hao Ni (UCL)  
and Ilya Chevyrev (Edinburgh)

**Register Now**



<https://www.imperial.ac.uk/mathematics/events/?type=conference>



**Contact**

c.salvi@imperial.ac.uk



We are grateful for the support from the "Making Cubature on Wiener Space Work" EPSRC Grant (EP/V005413/1), Imperial College London's Cecilia Tanner Research Funding Scheme, the DataSig Programme (EPSRC Grant EP/S026347/1) and the LMS Conference Grants Scheme.