12th Oxford-Berlin Young Researchers Meeting on Applied Stochastic Analysis

– Schedule –

Mathematical Institute, University of Oxford
Wednesday – L1, Thursday – N4.01, Friday – C2

Wednesday, 4th December, L1

13:30–14.00	**Registration and Welcome**	
14:00–14:25	Benjamin Fehrman (Oxford)	*Large deviations in interacting particle systems and stochastic PDE*
14:25–14:50	Federico Cornalba (IST Austria)	*From weakly interacting particles to a regularised Dean-Kawasaki model*
14:50–15:15	Armand Bernou (Sorbonne Université)	*A coupling approach for the rate of convergence of a collisionless gas*
15:15–15:45	**Coffee Break**	
15:45–16:10	Julian Sieber (Imperial)	*Monotonicity of the Poincaré and Log-Sobolev Constants of Gibbs Measures*
16:10–16:45	Cristopher Salvi (Oxford)	*The rough signature kernel*
16:45–17:10	Renyuan Xu (Oxford)	*A Case Study on Pareto Optimality for Collaborative Stochastic Games*
17:10–17:35	Benjamin Seeger (UPD CEREMADE)	*Scaling limits and homogenization of Hamilton-Jacobi equations with stochastic forcing*

Thursday, 5th December, N4.01

9:00–9:25	Eyal Neuman (Imperial)	*Hitting probabilities of a Brownian flow with Radial Drift*
9:25–9:50	Helena Kremp (FU Berlin)	*Multidimensional SDE with distributional drift and Lévy noise*
9:50–10:15	Paul Hager (TU Berlin)	*The multiplicative chaos of fractional Gaussian fields with zero Hurst parameter*
10:15–10:45	**Coffee Break**	
10:45–11:10	Patric Bonnier (Oxford)	*Signature cumulants and ordered partitions*
11:10–11:35	Rosa Preiß (TU Berlin)	*Signatures of paths transformed by polynomial maps*
11:35–12:00	Avi Mayorcas (Oxford)	*Stochastic McKean-Vlasov Equations: Local and Global Theory in Dimension One*
12:00–13:30	**Lunch**	
13:30–13:55	Nikolas Tapia (WIAS/TU Berlin)	*Iterated-sums signature, quasi-symmetric functions and time series analysis*
13:55–14:20	Patrick Kidger (Oxford)	*Deep Signature Transforms*
14:20–14:45	Shujian Liao (UCL)	*Learning SDEs using RNN with Log-Signature Features*
14:45–15:10	Adeline Fermanian (Sorbonne Université)	*Learning with signatures: embeddings and truncation order selection*
15:10–15:40	**Coffee Break**	
15:40–16:05	Csaba Toth (Oxford)	*Variational Gaussian processes with signature covariances*
16:05–16:30	James Foster (Oxford)	*High order numerical simulation of the Cox-Ingersoll-Ross process*
16:30–16:55	William Salkeld (Edinburgh)	*Small Ball Probabilities and Metric Entropy for Gaussian Rough Paths*
16:55–17:20	Yvain Bruned (Edinburgh)	*Renormalisation and the Hairer-Kelly map*
17:20–17:45	Christina Zou (Oxford)	*Solutions to the Skorokhod embedding problem for n-dimensional Brownian motion and rough paths*
18:45	**Conference Dinner**	

Friday, 6th December, C2

9:00–9:25	Mate Gerencser (IST Austria)	*Boundary renormalisation of stochastic PDEs*
9:25–9:50	Nikolay Barashkov (IAM/HCM University of Bonn)	*A variational approach to Φ_3^4*
9:50–10:15	Alexandra Neamtu (TU Münich)	*Global solutions for quasilinear SPDEs via the boundedness-by-entropy method*
10:15–10:45	**Coffee Break**	
10:45–11:10	Trishen Gunaratnam (University of Bath/Imperial)	*A Low Temperature Peierls Theory for Φ_3^4*
11:10–11:35	Immanuel Zachhuber (Bonn University)	*Strichartz estimates for the Anderson Hamiltonian*
11:35–12:00	Willem van Zuijlen (WIAS Berlin)	*From periodic to Dirichlet and Neumann on boxes*
12:00–13:30	**Lunch**	
13:30–13:55	Harprit Singh (Imperial)	*Mollification in regularity structures and related ideas*
13:55–14:20	Andris Gerasimovics (Imperial)	*Random directed mean curvature flow*
14:20–14:45	Florian Bechtold (Sorbonne Université)	*LLN for particle systems via an SPDE in mild formulation*
14:45–15:10	Oleg Butkovsky (WIAS)	*Numerical methods for SDEs: a stochastic sewing approach*
15:10–15:40	**Coffee and discussion in C1**	