14th Oxford-Berlin Young Researchers Meeting on Applied Stochastic Analysis

– Schedule –

University of Oxford (on Zoom), all times in GMT

Wednesday, 10th February

09:00–09:20	**Welcome**	
Chair:	Philipp Jettkant	
09:20–09:40	Khoa Le (TU Berlin)	*Rough stochastic differential equations*
09:40–10:00	William Salkeld (Universite Cote d'Azur)	*Probabilistic rough paths*
10:00–10:15	**Coffee Break**	
Chair:	Philipp Jettkant	
10:15–10:35	Helena Katharina Kremp (FU Berlin)	*Rough homogenization for Langevin dynamics on fluctuating Helfrich surfaces*
10:35–10:55	Nimit Rana (Bielefeld University)	*Random dynamical system generated by 3D Navier-Stokes equation with rough transport noise*
10:55–11:15	Lucio Galeati (University of Bonn)	*Inviscid mixing and enhanced dissipation for generic rough shear flows*
11:15–13:00	**Lunch Break**	
Chair:	Christina Zou	
13:00–13:20	Isao Sauzedde (LPSM)	*Lévy area without approximation*
13:20–13:40	Andrew Allan (ETH Zurich)	*Càdlàg rough differential equations with reflecting barriers*
13:40–14:00	Benjamin Seeger (Collège de France & CEREMADE)	*A Besov-type sewing lemma and applications*
14:00–14:15	**Coffee Break**	
Chair:	Christina Zou	
14:15–14:35	Nikolas Tapia (WIAS & TU Berlin)	*Approximation of controlled rough paths*
14:35–14:55	Carlo Bellingeri (TU Berlin)	*Higher order non-commutative rough paths*
14:55–15:15	Michele Coghi (TU Berlin)	*Robust filtering and McKean-Vlasov equations*

15:15–15:30	**Coffee Break**	
Chair:	Nicolas Tapia	
15:30–15:50	Patrick Kidger (University of Oxford)	*Neural SDEs as infinite-dimensional GANs*
15:50–16:10	Martin Redmann (Martin-Luther University of Halle Wittenberg)	*Runge-Kutta methods for rough differential equations*
16:10–16:30	James Foster (University of Oxford)	*Improving Heun's method for SDEs with additive noise*

Thursday, 11th February

Chair:	Patric Bonnier	
09:00–09:20	Paul Hager (TU Berlin)	*Unified signature cumulants and generalized Magnus expansions*
09:20–09:40	Rosa Preiß (TU Berlin)	*Rotation-Reflection invariants of paths through signatures and moving frames*
09:40–10:00	Joschua Diehl (Greifswald University)	*Non-commutative time series*
10:00–10:15	**Coffee Break**	
Chair:	Patric Bonnier	
10:15–10:35	Youness Boutaib (RWTH Aachen)	*Path classification with continuous-time recurrent neural networks*
10:35–10:55	Csaba Toth (University of Oxford)	*Seq2Tens: An efficient representation of sequences by low-rank tensor projections*
10:55–11:15	Alexander Schell (University of Oxford)	*Nonlinear independent component analysis for continuous-time signals*
11:15–13:00	**Lunch Break**	
Chair:	Philipp Jettkant	
13:00–13:20	Satoshi Hayakawa (University of Oxford)	*Estimating the probability that a given vector is in the convex hull of a random sample*
13:20–13:40	Vahagn Nersesyan (University of Versailles)	*Large deviations for the Lagrangian trajectories of the Navier–Stokes system*
13:40–14:00	Alexandre Pannier (Imperial College)	*Pathwise large deviations for white noise chaos expansions*
14:00–14:15	**Coffee Break**	
Chair:	Carlo Bellingeri	
14:15–14:35	Paolo Pigato (Università Roma Tor Vergata)	*Short dated smile under Rough Volatility*
14:35–14:55	Emanuel Rapsch (TU Berlin)	*A quantitative approach to sustainable finance via optimal stopping of diffusions*
14:55–15:15	Jiaming Xia (University of Pennsylvania)	*Hamilton–Jacobi equations for inference of matrix tensor products*

15:15–15:30	**Coffee Break**	
Chair:	Antoine Hocquet	
15:30–15:50	Nikolay Barashkov (University of Bonn)	*A stochastic control approach to Sine-Gordon*
15:50–16:10	Oleg Butkovsky (WIAS Berlin)	*Skew fractional Brownian motion: going beyond the Catellier-Gubinelli setting*

Friday, 12th February

Chair:	Avi Mayorcas	
09:00–09:20	Antoine Mouzard (University of Rennes)	*Singular stochastic operator*
09:20–09:40	Sascha Gaudlitz (HU Berlin)	*Statistical inference on the reaction term in semi-linear SPDEs*
09:40–10:00	Ana Djurdjevac (FU Berlin)	*Approximation of the Dean-Kawasaki equation*
10:00–10:15	**Coffee Break**	
Chair:	Avi Mayorcas	
10:15–10:35	Immanuel Zachhuber (FU Berlin)	*Finite speed of propagation for the wave equation with white noise potential*
10:35–10:55	Oana Lang (Imperial College)	*Analytical properties for stochastic transport systems*
10:55–11:15	Clayton Barnes (Technion-Israel Institute of Technology)	*Effect of noise on the speed of the wavefront for stochastic FKPP equations*
11:15–13:00	**Lunch Break**	
Chair:	WIllem van Zuijlen	
13:00–13:20	Harprit Singh (Imperial College)	*Regularity structures on manifolds and vector bundles*
13:20–13:40	Hong-Bin Chen (NYU)	*Dynamic polymers: invariant measures and ordering by noise*
13:40–14:00	Yizheng Yuan (TU Berlin)	*SLE with time-dependent parameter*
14:00–14:15	**Coffee Break**	
Chair:	Tom Klose	
14:15–14:35	Toyomu Matsuda (FU Berlin)	*Integrated density of states associated with two-dimensional white noise*
14:35–14:55	Willem van Zuijlen (WIAS Berlin)	*Quantitative heat kernel estimates for diffusions with distributional drift*
14:55–15:15	Avi Mayorcas (University of Oxford)	*Distribution dependent SDEs driven by additive fractional Brownian motion*
15:15–15:35	Florian Nie (TU Berlin)	*A voter model approximation for the stochastic FKPP equation with seed bank*