

## Programme

### Monday 20 June 2022 – All times are BST

09.10- 9.30 <b>(BST)</b>	Registration with coffee
09:30 -09.45 <b>(BST)</b>	<b>Introductions</b>
09:45-10:30 <b>(BST)</b>	<b>Röckner, Michael</b> (University of Bielefeld, Germany) <i>Title: On A Longstanding Open Problem In The Theory Of Markov Processes.</i>
10.30-11.00	Coffee/Tea
11.00-11.45 <b>(BST)</b>	<b>Dong, Hongjie</b> (Brown University, USA) <i>Title: Sobolev estimates for degenerate Kolmogorov equations</i>
11.55-12.20 <b>(BST)</b>	<b>Gerencsér, Máté</b> (TU Wien, Austria) <i>Title: Regularisation by noise with subcritical drifts or multiplicative noise</i>
12.20-14.00	Lunch
14.00-14.45 <b>(BST)</b>	<b>Tolomeo, Leonardo</b> (Hausdorff Center for Mathematics) <i>Title: Phase transitions of the focusing <math>\Phi^p_1</math> measures</i>
14.55-15.40 <b>(BST)</b>	<b>Bringmann, Bjoern</b> (Institute for Advanced Study/Princeton University, USA) <i>Title: Invariant Gibbs measures for the three-dimensional cubic nonlinear wave equation.</i>
15.40-16.05	Coffee/Tea
16.05-16.30 <b>(BST)</b>	<b>Robert, Tristan</b> (Université de Lorraine, France) <i>Title: Variational methods for some singular stochastic elliptic PDEs</i>
17.00 – 18.30 <b>(BST)</b>	Informal Welcome Reception with Posters <ul style="list-style-type: none"> <li>• <b>Dietze, Charlotte</b> (LMU Munich) <i>Dispersive Estimates for Nonlinear Schrödinger Equations with External Potentials.</i></li> <li>• <b>Cornalba, Federico</b>, (Institute of Science and Technology Austria (ISTA)) <i>On discretisations of Dean-Kawasaki models.</i></li> <li>• <b>Lee, Jinyeop</b> (LMU Munich) <i>On the time dependence of the rate of convergence towards Hartree dynamics for interacting Bosons.</i></li> <li>• <b>Woo, Kwan</b> (Korea University) <i>Sobolev and trace embeddings via mollifications.</i></li> <li>• <b>Zheng, Guangqu</b> (University of Edinburgh) <i>Pathwise well-posedness of stochastic nonlinear Schrödinger equations with multiplicative noises.</i></li> <li>• <b>Zine, Younes</b> (University of Edinburgh) <i>Convergence problems for singular stochastic dynamics.</i></li> <li>• <b>Wu, Sizhou</b> (Nanyang Technological University) <i>Multilevel Picard Approximation Scheme for Semilinear Parabolic Partial Integro-differential Equations.</i></li> <li>• <b>Germ, Fabian</b> (University of Edinburgh) <i>Nonlinear filtering for partially observed jump diffusions.</i></li> </ul>

Harmonic Analysis, Stochastics and PDEs in Honour of the 80th Birthday of Nicolai Krylov

ICMS, Edinburgh 20 – 24 June 2022

**Tuesday 21 June 2022**

09.30-10.15 <b>(BST)</b>	<b>Kim, Kyeong-Hun</b> (Korea University, Korea) <i>Title: Sobolev regularity for PDEs with fractional Laplacian on <math>C^1</math> open sets.</i>
10.15-10.45	Coffee/Tea
10.45-11.30 <b>(BST)</b>	<b>Safonov, Mikhail</b> (University of Minnesota, USA) <i>Title: On the boundary estimates for solution to second order elliptic and parabolic equations</i>
11.40-12.25 <b>(BST)</b>	<b>Peszat, Szymon</b> (Jagiellonian University, Poland) <i>Title: Heat equation with Dirichlet white noise boundary conditions.</i>
12.25 -14.00	Lunch
14.00-14.25 <b>(BST)</b>	<b>Maurelli, Mario</b> (Università degli Studi di Milano, Italy) <b>(ONLINE)</b> <i>Title: Non-explosion by Stratonovich noise for ODEs</i>
14.35-15.00 <b>(BST)</b>	<b>Hoshino Masato</b> (Osaka University, Japan) <i>Title: Paracontrolled calculus and regularity structures.</i>
15.10–15.35 <b>(BST)</b>	<b>Dareiotis, Konstantinos</b> (University of Leeds, UK) <i>Title: Approximation of stochastic differential equations with irregular drifts</i>
15.35-16.05	Coffee/Tea
16.05-16.30 <b>(BST)</b>	<b>Sun, Chenmin</b> (Universtité Paris-Est Créteil, France) <i>Title: Weak Universality for a class of nonlinear wave equatoins</i>
17.30	<b>Doors open for Public Lecture</b>
18.00-19.00 <b>(BST)</b>	Public Lecture <b>Chevryrev, Ilya</b> (University of Edinburgh, UK) <i>Title: The rough journey of Brownian motion: from pollen particles, to Avogadro number, to stock markets.</i>

**Wednesday 22 June 2022**

09.30-10.15 <b>(BST)</b>	<b>Weis, Lutz</b> (Karlsruhe Institute for Technology, Germany) <i>Title: A stochastic maximal function and regularity estimates for parabolic stochastic evolution equations.</i>
10.25-11.10 <b>(BST)</b>	<b>Veraar, Mark</b> (Delft University of Technology, Netherland) <i>Title: SPDE in critical spaces.</i>
11.10-11.40	Coffee/Tea
11.40-12.25 <b>(BST)</b>	<b>Lee, Kijung</b> (Ajou University, Korea) <i>Title: Stochastic parabolic equation and Dirichlet boundary condition.</i>
	<b>Half Day – Please note no lunch will be served</b>

Harmonic Analysis, Stochastics and PDEs in Honour of the 80th Birthday of Nicolai Krylov  
 ICMS, Edinburgh 20 – 24 June 2022

**Thursday 23 June 2022**

09.30-10.15 (BST)	<b>Trudinger, Neil</b> (Australian National University, Australia) (ONLINE) <i>Title: Classical solvability of generated Jacobian equations.</i> BC
10.15-10.45	Coffee/Tea
10.45-11.30 (BST)	<b>Da Prato, Giuseppe</b> (Scuola Normale Superiore, Pisa) (ONLINE) <i>Title: Existence of the gradient for solutions of some Hypoelliptic Dirichlet problems</i>
11.40-12.25 (BST)	<b>Priola, Enrico (University of Pavia, Italy)</b> (ONLINE) <i>Title: Poisson process and sharp constants in <math>L^p</math> and Schauder estimates for a class of degenerate Kolmogorov operators.</i>
12.25-14.00	Lunch
14.00-14.45 (BST)	<b>Pardoux, Etienne</b> (Aix-Marseille Université, France) (ONLINE) <i>Title: Uniqueness of the filtering equations in the space of measures</i>
14.55-15.40 (BST)	<b>Freidlin, Mark</b> (University of Maryland, USA) (ONLINE) <i>Title: Long-time Influence of Small perturbations.</i>
15.40-16.05	Coffee/Tea
16.05-16.30 (BST)	<b>Wang, Yuzhao</b> (University of Birmingham) <i>Title: Stochastic quantization of Liouville conformal field theory</i>
18.00	<b>Pre-dinner drinks</b>
19.00	Conference Dinner

**Friday 24 June 2022**

09.30-09.55 (BST)	<b>Chapouto, Andreia</b> (UCLA, USA) <i>Title: Invariance of the Gibbs measures for the periodic generalized KdV equations.</i>
10.05-10.30 (BST)	<b>Forlano, Justin</b> (UCLA, USA) <i>Title: Global well-posedness and quasi-invariance of Gaussian measures for fractional nonlinear Schrödinger equations</i>
10.30-11.00	Coffee/Tea
11.00-11.45 (BST)	<b>Kim, Doyoon</b> (Korea University, Korea) <i>Title: <math>L^p</math> theory for parabolic equations with local and non-local time derivatives.</i>
11.55-12.40 (BST)	<b>Veretennikov, Alexander</b> (University of Leeds) <i>Title: On ergodic properties of a diffusion with switching.</i>
	<b>Half Day – Please note no lunch will be served</b>
	<b>Workshop Close</b>