Probability and NonLocal PDEs: Interplay and Cross-Impact (Swansea University, 17–19 September 2018)

Monday

09:30 - 09:40 *Opening remarks*

09:40 - 10:30 **Karsten Matthies** (Bath) Rescaled objective solutions of Fokker–Planck and Boltzmann equations

> 10:40 - 11:00 *Coffee break*

11:00 - 11:50 **Mariya Ptashnyk** (Heriot-Watt) Homogenization of degenerate pseudoparabolic equations and variational inequalities

12:00 - 12:50 Marton Balazs (Bristol) Blocking measures, hills, and hydrodynamics

> 13:00 - 14:30 *Lunch*

14:30 - 15:20 Oleksandr Kutoviy (Bielefeld) Nonlinear perturbations of evolution systems in scales of Banach spaces

15:30 - 16:20 Carina Geldhauser (St Petersburg) Optimizing the fractional power in a model with stochastic PDE constraints

> 16:30 - 16:50 *Coffee break*

16:50 - 17:15 **Lorenzo Toniazzi** (Warwick) *Caputo evolution equations* with time-nonlocal initial condition

> 19:00 Conference dinner

Tuesday

09:30 - 10:20 Sarah Penington (Bath) Branching Brownian motion with decay of mass and the non-local Fisher–KPP equation

> 10:30 - 10:50 *Coffee break*

10:50 - 11:40 Emeric Bouin (Paris Dauphine) Logarithmic delays in non local Fisher–KPP problems

11:50 - 12:40 Elaine Crooks (Swansea) Invasion speeds in a competition-diffusion model with mutation

> 12:50 - 13:00 *Photo*

13:00 - 14:30 Lunch & Posters

14:30 - 15:20 **Raluca Eftimie** (Dundee) The impact of environmental stochasticity on a class of nonlocal hyperbolic models for self-organised biological aggregations

> 15:30 - 16:20 **Pasha Tkachov** (L'Aquila) On stability of traveling wave solutions for integro-differential equations related to branching Markov processes

> > 16:30 - 16:50 *Coffee break*

16:50 - 17:15 John Herman (Warwick) Extension technique for trace processes: a stochastic approach

17:20 - 17:45 **Peter Kuchling** (Bielefeld) Glauber dynamics on the cone of discrete Radon measures Wednesday

09:30 - 10:20 **Dmitri Finkelshtein** (Swansea) Stochastic dynamics of complex systems: mesoscopic description and beyond

> 10:30 - 10:50 *Coffee break*

10:50 - 11:30 Chris Lutsko (Bristol) The Lorentz gas: going beyond the Boltzmann-Grad limit

11:40 - 12:20 Ifan Johnston (Warwick) Heat kernel estimates for fractional evolution equations