

Workshop on Stochastic Dynamics

within the project PN-III-P4-PCE-2021-0921

November 18-19, 2022, Bucharest, Romania

Program

Workshop location: IMAR, “Miron Nicolescu” Amphitheater, ground floor

Friday, November 18, 2022

Chair: Ciprian Tudor

9:00 – 9:40 **Viorel Barbu** (Romanian Academy)

Uniqueness for nonlinear Fokker-Planck equations and for McKean-Vlasov SDEs

Chair: Viorel Barbu

10:45 – 11:25 **Wilhelm Stannat** (TU Berlin)

Two results on the optimal control for stochastic partial differential equations (SPDE)

12:15 – 12:55 **Max von Renesse** (Leipzig University)

Spectral Gap Estimates for Brownian motion with sticky reflecting boundary diffusion

Chair: Wilhelm Stannat

15:05 – 15:45 **Madalina Deaconu** (Inria Nancy - Grand Est & IECL)

An excursion through the probabilistic representations of the fragmentation equation

Chair: Lucian Beznea

16:50 – 17:20 **Karen Habermann** (University of Warwick)

A polynomial expansion for Brownian motion and the associated fluctuation process

17:25 – 17:55 **Ionuț Munteanu** (Al. I. Cuza University of Iassy)

Well-posedness for the Cahn-Hilliard-Navier-Stokes equations driven by gradient type noise

18:00 – 18:30 **Diana Conache** (TU Munich)

A variational condition for uniqueness of Doeblin measures

Saturday, November 19, 2022

Chair: Lucian Beznea

12:15 – 12:45 **Oana Lang** (Imperial College London)

On local and global solutions for a class of stochastic shallow water models

12:50 – 13:15 **Benedikt Eisenhuth** (Technical University Kaiserslautern)

Hypoocoercivity for second order in time Reaction-Diffusion and Cahn-Hilliard type equations with multiplicative noise

13:20 – 13:35 **Adela Popescu** (Simion Stoilow Institute of Mathematics of the Romanian Academy)

Pure branching and total mass processes

14:30 – 14:45 **Alexandra Andriciu** (University of Bucharest and Simion Stoilow Institute of Mathematics of the Romanian Academy)

The PSO algorithm – a particular version

14:50 – 15:05 **Alexandru Mustățea** (Simion Stoilow Institute of Mathematics of the Romanian Academy)

Stochastic integration from a functional-analytic point of view

15:10 – 15:25 **Marian Petrică** (University of Bucharest and Gheorghe Mihoc – Caius Iacob Institute of Mathematical Statistics and Applied Mathematics of the Romanian Academy)

A modified SIRD model for Covid19 spread prediction using ensemble neural networks

15:30 – 15:45 **Alexandra Teodor** (University POLITEHNICA of Bucharest and Simion Stoilow Institute of Mathematics of the Romanian Academy)

The stochastic solution to a nonlinear Dirichlet problem with discontinuous boundary data