INHOMOGENEOUS RANDOM SYSTEMS
Systèmes Aléatoires Inhomogènes

January 23-24, 2024

Institut Henri Poincaré
Amphithéâtre Hermite
11-13 rue Pierre et Marie Curie, Paris
https://www.ihp.fr/
also online

Tuesday 23 January:
Large scale limits of particle systems: kinetic theory and applications
Moderator: **Sergio Simonella (Roma)**

9h00 – 9h10 :	Opening	
9h10 – 10h00 :	**Sergio Simonella (Roma)**: *Foundations of kinetic theory: recent progress and open directions.*	
10h00 – 10h50 :	**Raphael Winter (Cardiff)**: *Kinetic scaling limits in plasma physics.*	
10h50 – 11h10 :	Coffee Break	
11h10 – 12h00 :	**Lorenzo Bertini (Roma)**: *TBA.*	
12h00 – 13h50 :	Lunch Break	
13h50 – 14h40 :	**Herbert Spohn (München)**: *Kinetic theory of weakly nonlinear wave equations.*	
14h40 – 15h30 :	**Rossana Marra (Roma)**: *On the derivation of new non-classical hydrodynamic equations for a Boltzmann gas and for Hamiltonian particle systems.*	
15h30 – 15h50 :	Coffee Break	
15h50 – 16h40 :	**Pierre Degond (Toulouse)**: *Swarming rigid bodies: geometry and topology.*	
16h40 – 17h30 :	**Sylvia Serfaty (New York)**: *Mean-field limits for log/Coulomb/Riesz interacting diffusions.*	

Wednesday 24 January:
Boundaries in driven systems: Duality, hydrodynamics, and large deviations
Moderator: **Gunter M. Schütz (Juelich)**

9h00 – 9h10 :	Opening	
9h10 – 10h05 :	**Gunter M. Schütz (Juelich)**: *From reverse duality to shock random walks in the open asymmetric simple exclusion process.*	
10h05 – 11h00 :	**Patricia Gonçalves (Lisboa)**: *On the non-equilibrium fluctuations of partial exclusion with boundary.*	
11h00 – 11h25 :	Coffee Break	
11h25 – 12h20 :	**Chiara Franceschini (Modena)**: *Long-range correlations via duality for (a-)symmetric particle systems.*	
12h20 – 14h15 :	Lunch Break	
14h15 – 15h10 :	**Bernard Derrida (Paris)**: *At the transition between pulled and pushed fronts.*	
15h10 – 16h05 :	**Ali Zahra (Lisboa)**: *Steady-state selection in multi-species driven diffusive systems.*	
16h05 – 16h30 :	Coffee Break	
16h30 – 17h25 :	**Tridib Sadhu (Mumbai)**: *Effect of boundary on the large deviations of density and of current in the non-equilibrium stationary state of symmetric simple exclusion process.*	

Informations and abstracts at: **http://irs.math.cnrs.fr**

Registration:

The conference is free and open to all.
To facilitate local organization and to receive a connection link, please register in advance by sending an e-mail **before January 16** with your name, affiliation, mail address and your choice to be on site or online, to:

inter@math.cnrs.fr with subject: **IRS 2024**

Giambattista Giacomin	Christian Maes	Ellen Saada
Mathématiques, LPSM	Theoretische Fysica	Mathématiques, MAP5
Université Paris Cité	KU Leuven, Belgium	CNRS & Université Paris Cité