CERGY-WARWICK WORKSHOP ON MATHEMATICAL PHYSICS

June 13-14, 2018

Maison internationale de la recherche
Université de Cergy-Pontoise
1, rue Descartes, 95000 Neuville-sur-Oise
http://iea.u-cergy.fr

The aim of this workshop is to bring together researchers working in Mathematical Physics from both University of Cergy-Pontoise (Departments of Mathematics (AGM) and Theoretical Physics (LPTM)) and University of Warwick (Department of Mathematics (WMI)), and to discuss recent rigorous results obtained in the field of equilibrium and non-equilibrium statistical physics, both in their probabilistic and theoretical aspects. The workshop is organized in the context of a strengthening of scientific relations between researchers from both Universities. Interested people from other institutions are welcome to participate.

Schedule

Wednesday, June 13th:

13h00 – 13h10 : **Opening**

13h10 – 13h55 : **Oleg Zaboronski (WMI)**: *Correlation functions for coalescing random walks in two dimensions.*

14h5 – 14h50 : **Thierry Huillet (LPTM)**: *Karlin-McGregor mutational occupancy problem revisited.*

15h00 – 15h45 : **Inés Armendáriz (UBA & WMI)**: *Spatial random permutations.*

15h55 – 16h10 : Coffee Break

16h10 – 16h55 : **Raphael Krikorian (AGM)**: *Reducibility and almost-reducibility in quasi-periodic dynamics: local and global aspects.*

17h05 – 17h50 : **Daniel Ueltschi (WMI)**: *Dimerisation in quantum spin chains.*

Thursday, June 14th:

9h30 – 10h15 : **Stefan Adams (WMI)**: *Loop measures for space-time random walks.*

10h25 – 11h10 : **Irina Igniatiouk (AGM)**: *Harmonic functions of random walks in a semigroup via ladder heights.*

11h20 – 11h40 : Coffee Break

11h40 – 12h25 : **Flora Koukiou(LPTM)**: *The entropic signature of freezing in Gaussian mean-field models.*

12h35 – 14h00 : Lunch

14h00 – 14h45 : **Stefan Grosskinsky (WMI)**: *Mean-field particle systems and applications to current large deviations.*

14h55 – 15h40 : **Armen Shirikyan (AGM)**: *An elementary introduction to the fluctuation theorem for chaotic dynamical systems.*

15h50 – 16h10 : Coffee Break

16h10 – 16h55 : **Vedran Sohinger (WMI)**: *Gibbs measures of nonlinear Schrödinger equations as limits of many-body quantum states in dimension $d \leq 3$.*

17h05 – 17h50 : **Thierry Gobron (LPTM)** : *Mean field games and nonlinear Schrödinger equations.*

Informations, abstracts and online registration at: **http://indico.math.cnrs.fr/e/CWW2018**.

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