HORAIRE / *PROGRAM*

ATELIER
RELATIONS DE FLUCTUATION ENTROPIQUE EN MATHÉMATIQUES ET PHYSIQUE

29 octobre au 2 novembre 2018

WORKSHOP

ENTROPIC FLUCTUATION RELATIONS IN MATHEMATICS AND PHYSICS

October 29–November 2, 2018

CONFÉRENCES : salle 6254 (Pavillon André-Aisenstadt)

PAUSES-CAFÉ : salle 6245 (Pavillon André-Aisenstadt)

LECTURES: *Room 6254 (Pavillon André-Aisenstadt)*

COFFEE BREAKS: *Room 6245 (Pavillon André-Aisenstadt)*

Le lundi 29 octobre 2018 / *Monday, October 29, 2018*

09:00–09:30   Inscription (salle 5345) et café-croissants (salle 6245)
Registration (Room 5345) and Coffee & Croissants (Room 6245)

09:30–10:40 Yariv Kafri (Technion-Israel Institute of Technology)
"Long-range forces between bodies in active matter"

10:40–11:20   Pause-café / *Coffee break*

11:20–12:00 Freddy Bouchet (ENS de Lyon & CNRS)
"Rare events in complex dynamical systems: the examples of the climate and the solar system dynamics"

12:00–12:40 Stefano Olla (Université de Paris - Dauphine)
"Hydrodynamic fluctuations in Euler scaling and beyond, with boundary tension"

12:40–14:30   Pause-déjeuner / *Lunch break*

14:30–15:10 Naoko Nakagawa (Ibaraki University)
"Global thermodynamics and linear response theory for liquid-gas transitions under heat conduction"

15:10–15:50 Shin-Ichi Sasa (Kyoto University)
"Stochastic order parameter dynamics with energetics: phase coexistence under heat conduction"

Le mardi 30 octobre 2018 / *Tuesday, October 30, 2018*

09:00–09:30   Café croissants / *Coffee & Croissants*

09:30–10:10 Raphaël Chetrite (Laboratoire J.A. Dieudonné, UMR 7351 CNRS UNS)
"Large deviations and uncertainty relations in periodically forced Markov process"

10:10–10:50 Christian Maes (KU Leuven)
"Non-entropic aspects of nonequilibrium"

10:50–11:20   Pause-café / *Coffee break*

11:20–12:00 Hugo Touchette (Stellenbosch University)
"Anomalous scaling of dynamical large deviations"

12:00–12:40 Alessandro Sarracino (Università della Campania "L. Vanvitelli")
"Nonlinear response and fluctuations of a driven tracer in simple model fluids"

12:40–14:30   Pause-déjeuner / *Lunch break*

14:30–15:10 Lawrence E. Thomas (University of Virginia)
"Notes on a non-equilibrium stationary state for a stochastic Klein-Gordon equation"

15:10–16:10 Herbert Spohn (Technische Universität München)
"Nonlinear fluctuating hydrodynamics and equilibrium time correlations of classical spin chains"

Le mercredi 31 octobre 2018 / *Wednesday, October 31, 2018*

09:00–09:30   Café croissants / *Coffee & Croissants*

09:30–10:10 Renaud Raquépas (McGill University & Université Grenoble-Alpes)
"Tails of the distribution of heat variations in the two-time measurement framework"

10:10–10:50 Yan Pautrat (Université Paris-Sud)
"Heat conservation and fluctuations for open quantum systems in the two-time measurement picture"

10:50–11:20   Pause-café / *Coffee break*

11:20–12:00 Alain Joye (Université de Grenoble I)
"Landauer's principle in adiabatic repeated interaction systems"

12:00–12:40 Krzysztof Gawedzki (ENS de Lyon)
"Full counting statistics of heat transfers in non-equilibrium conformal field theory"

12:40–14:30   Pause-déjeuner / *Lunch break*

14:30–15:10 Frederico Bonetto (Georgia Institute of Technology)
"The Kac model and non-equilibrium statistical mechanics"

15:10–16:10 Sergio Ciliberto (CNRS)
"A review on the experimental aspects of stochastic thermodynamics"

Le jeudi 1 novembre 2018 / *Thursday, November 1, 2018*

09:00–09:30   Café croissants / *Coffee & Croissants*

09:30–10:10 Noé Cuneo (Université Paris Diderot)
"Large deviations for entropy production using Ruelle-Lanford functions: an elementary introduction"

10:10–10:50 David P. Ruelle (IHES)
"Grace-like polynomials and related questions"

10:50–11:20   Pause-café / *Coffee break*

11:20–12:00 Luc Rey-Bellet (University of Massachusetts Amherst)
"Uncertainty quantification and thermodynamic formalism"

12:00–12:40 Alexandre Lazarescu (Ecole Polytechnique)
"Fluctuation relations, gradient flows, and the GENERIC formalism"

12:40–14:30   Pause-déjeuner / *Lunch break*

14:30–15:10 Wojciech De Roeck (KU Leuven)
"A simple, unifying theory of prethermalization"

15:10–15:50 Thibaut Demaerel (KU Leuven)
"StatMech pieces to the dark energy puzzle"

Le vendredi 2 novembre 2018 / *Friday, November 2, 2018*

09:00–09:30   Café croissants / *Coffee & Croissants*

09:30–10:10 Lamberto Rondoni (Politecnico di Torino)
"Finite size quantum multibarrier systems vs. boundary driven Zero Range models"

10:10–10:50 Peter Embacher (University of Warwick)
"On finding gradient flow equations from particle observations"

10:50–11:20   Pause-café / *Coffee break*

11:20–12:00 Armen Shirikyan (Université de Cergy-Pontoise, Saint-Martin)
"Large deviations and entropy production in viscous fluid flows - Part I"

12:00–12:40 Vahagn Nersesyan (Université de Versailles-Saint-Quentin-en-Yvelines)
"Large deviations and entropy production in viscous fluid flows - Part II"

Spéciale (salle/*Room*)
Special (salle/Room)

15:00–16:00 Sergio Ciliberto (CNRS)
"A review of connection between infomation and thermodynamics"