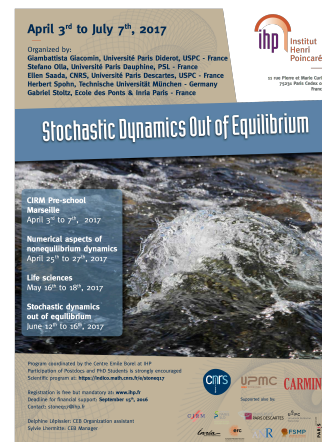


« Stochastic Dynamics Out of Equilibrium » Paris, April 3rd – July 7th, 2017

Workshop Life Sciences
Paris, May 16th – 18th, 2017
Amphitheater Hermite



Organizers : **Giambattista Giacomin** (Université Paris Diderot, USPC, France), **Stefano Olla** (Université Paris Dauphine, PSL, France), **Ellen Saada** (CNRS, Université Paris Descartes, USPC, France), **Herbert Spohn** (Technische Universität München, Germany), **Gabriel Stoltz** (École des Ponts & Inria Paris, France)

Invited speakers :

Luis Almeida (UPMC, LJLL & CNRS)
Cécile Appert-Rolland (Paris Saclay & CNRS)
Matthias Birkner (Mainz)
Luis Bonilla (Madrid)
Eric Brunet (ENS, LPS)
Leonid Bunimovich (Georgia Tech)
Vincent Calvez (Lyon, UMPA & CNRS)

Francesca Collet (Delft)
Bastien Fernandez (Paris Diderot, LPMA & CNRS)
Amic Frouvelle (Paris Dauphine, CEREMADE)
Boris Gutkin (ENS, LNC)
David Hansel (Paris Descartes, CNPP & CNRS)
Antal Jarai (Bath)
Jurgen Kurths (Potsdam)

Thomas Lepoutre (INRIA Lyon)
Stephan Luckhaus (Leipzig)
Delphine Salort (UPMC, LCQB)
Rinaldo Schinazi (Colorado Springs)
Julien Tailleur (Paris Diderot, LMSC & CNRS)
Eric Vanden-Eijnden (Courant Institute)

PROGRAM

Tuesday May 16th

09.00 am – 09.25 am Registration and Welcome coffee – IHP ground floor

09.25 am – 09.30 am **Introductory remarks**

09.30 am – 10.15 am **Julien Tailleur** Phase equilibria of phase-separating self-propelled particles.

10.15 am – 10.45 am Coffee break IHP ground floor

10.45 am – 11.30 am **Eric Brunet** The Fisher-KPP equation with noise, and branching processes.

11.30 am – 12.15 pm **Thomas Lepoutre** Quantitative convergence towards a self similar profile in an age-structured renewal equation for subdiffusion.

12.15 pm – 02.00 pm Lunch break

02.00 pm – 02.45 pm **Eric Vanden-Eijnden** Spatiotemporal Self-Organization of Fluctuating Bacterial Colonies.

02.45 pm – 02.55 pm **Discussion break**

02.55 pm – 03.40 pm **Cécile Appert-Rolland** Intracellular transport of cargos: tug-of-war, anomalous diffusion, and lattice deformation.

03.40 pm – 04.15 pm Coffee break IHP ground floor

04.15 pm – 05.00 pm **Bastien Fernandez** Landau damping in the Kuramoto model.

05.00 pm – 05.45 pm **Leonid Bunimovich** Cross-immunoreactivity generates local immunodeficiency.

06.00 pm – 08.30 pm Cocktail Dinner and Poster session – IHP ground floor

Wednesday May 17th

09.30 am – 10.15 am **David Hansel** The balanced state: the standard model and beyond.

10.15 am – 10.45 am **Coffee break** IHP ground floor

10.45 am – 11.30 am **Jurgen Kurths** Quenching and Reviving Oscillations in Complex Networks.

11.30 am – 12.15 pm **Francesca Collet** Rhythmic collective behavior in mean-field systems.

12.15 pm – 02.00 pm Lunch break

02.00 pm – 02.45 pm **Amic Frouvelle** Nonlinear stability of aligned states for a alignment process on the sphere.

02.45 pm – 02.55 pm **Discussion break**

02.55 pm – 03.40 pm **Delphine Salort** Some PDE models in neurosciences.

03.40 pm – 04.15 pm Coffee break IHP ground floor

04.15 pm – 05.00 pm **Boris Gutkin** Inverse Stochastic Resonance with an example in Purkinje Neurons.

06.00 pm – 07.00 pm **Public lecture by Stéphane DOUADY** (Paris Diderot, LMSC & CNRS):

Les plantes font-elles des mathématiques (bien avant nous)?

09.30 am – 10.15 am	Antal Jari	Inequalities for critical exponents in sandpiles.
10.15 am – 10.45 am	Coffee break	IHP ground floor
10.45 am – 11.30 am	Rinaldo Schinazi	A stochastic model for the evolution of a virus population.
11.30 am – 12.15 pm	Matthias Birkner	A conditional coalescent limit in fixed pedigrees.
12.15 pm – 02.00 pm	Lunch break	
02.00 pm – 02.45 pm	Stephan Luckhaus	Chemomechanical machines and the notion of pseudopods.
02.45 pm – 2.55 pm	Discussion break	
02.55 pm – 03.40 pm	Luis Bonilla	Tumor induced angiogenesis.
03.40 pm – 04.15 pm	Coffee break	IHP ground floor
04.15 pm – 05.00 pm	Luis Almeida	Geometry and wound healing mechanisms.
05.00 pm – 05.45 pm	Vincent Calvez	Velocity-jump processes: large deviations and acceleration of fronts in transport-reaction equations.

Abstracts are available on the website of the trimester « Stochastic Dynamics Out of Equilibrium »
<https://indico.math.cnrs.fr/e/stoneq17>

