



Fabio Coppini

Born in Prato (PO), Italy.

email: fabio.coppini@univ-paris-diderot.fr
phone: +33 (0)7 63 40 60 98
pa: Université de Paris,
Bâtiment Sophie Germain
75205 Paris Cedex 13
office: 5033
website: <http://pensierolibero.me/mathematics/>

Mathematics

September 2017 - October 2020 - PhD in Applied Mathematics, LPSM, Université de Paris
Supervisor: Giambattista Giacomin <https://www.lpsm.paris/semoa/users/giacomin/index>
Subject: *Weakly Interacting Diffusions on Graphs*
Marie Skłodowska-Curie Fellowship: <http://www.cofund-inspire.eu/>

September 2018 - August 2019 - PhD seminar organiser in LPSM (Université de Paris & Sorbonne Université) with G. Conchon-Kerjan, B. Dembin, A. Lefebvre, N. Meyer, O. Safsafi, T. Touati: <https://www.lpsm.paris/agenda/seminaires-gdt/gtt/>

2017 - Master in Mathematics in Università degli Studi di Firenze, 110/110 cum lauda.
Thesis: *Synchronisation Phenomena and Random Graphs*.

2014 - Bachelor in Mathematics in Università degli Studi di Firenze, 110/110 cum lauda.
Thesis: *Vibrating Strings and Irrational Numbers*.

Research interests

My research area covers:

- Relationship between mean field models and models defined on graphs;
- Long-time behaviour of systems defined by stochastic differential equations;
- Dynamical properties of Weakly Interacting Particle systems;
- Inhomogeneous (random) graphs and graphons.

Publications

31 Jul 2018 | *A Law of Large Numbers and Large Deviations for interacting diffusions on Erdős-Rényi graphs*, F. Coppini, H. Dietert and G. Giacomin (to appear in SD)
Parameter must be an array or an object that implements Countable in
<https://doi.org/10.1142/S0219493720500100>

Preprints

13 Jun 2020 | *Weakly interacting oscillators on dense random graphs*, G. Bet, F. Coppini, F. R. Nardi, 2020 | <https://arxiv.org/abs/2006.07670> (submitted)

12 May 2020 | *A Law of Large Numbers for interacting diffusions via a mild formulation*, F. Bechtold and F. Coppini | <https://arxiv.org/abs/2005.05624> (submitted)

18 Dec 2019 | *Longtime dynamics for interacting oscillators on graphs*, F. Coppini
<https://arxiv.org/abs/1908.01520> (submitted)

Talks

10/2020 | Probability Seminar in MAP5 (Université de Paris): *Weakly interacting particles on dense graph sequences*

05/2020 | Cambridge Kinetic Group weekly seminar: *Longtime behaviour for interacting oscillators*

02/2020 | Università degli Studi di Firenze Probability Seminar: *Longtime dynamics for interacting oscillators on graphs*

01/2020 | PhD Seminar in LMB, Besançon: *Longtime dynamics for interacting oscillators on graphs*

12/2019 | PhD Seminar in LPSM: *Longtime dynamics for interacting oscillators on graphs*

06/2019 | Talk at *Les Probabilités de Demain*, Paris - *A Law of Large Numbers for Weakly Interacting Particles on Random Graphs* ([video](#))

12/2018 | PhD Seminar in LPSM: *Weakly Interacting Particle Systems: a crash course*

12/2016 | PhD Seminar in LPSM: *Synchronisation Phenomena on Random Graphs*.

Posters

12/2019 | *Particle Systems and PDE's VIII*, Instituto Superior Técnico, Lisbon

07/2019 | *Random Graphs and Complex Networks: Structure and Function*, Bocconi Summer School

04/2019 | *Equilibrium and Non-equilibrium Statistical Mechanics A conference in honor of François Dunlop*, Villa Finaly (Florence)

Attended Conferences

2020

Spectra, Algorithms and Random Walks on Random Networks | 13-17 Jan, CIRM, Marseille

2019

Particle Systems and PDE's VIII | 2-6 Dec, University of Lisbon, Instituto Superior Técnico, Lisbon

Random Graphs and Complex Networks: Structure and Function | Bocconi Summer School, 8-19 July, Como

High dimensional probability and algorithms | 1-5 July, PSL, Paris

Walking through the Brownian zoo | 3-7 June, Paris

Semaine d'Études Maths Entreprises SEME | 20-24 May, LMB, Besançon

Equilibrium and Non-equilibrium Statistical Mechanics | 8-10 April, Villa Finaly, Florence

Mathematics and culture | 29-31 March, Istituto Veneto di Scienze, Lettere ed Arti, Venice

2018

A spring day in Probability and Statistical Physics | 25 May, Università di Firenze

Spin Systems: Discrete and Continuous | Spring School, 19-23 March, TU Darmstadt

Teaching Experience

As teaching assistant in Université de Paris:

2019 - L3 Math - Probabilités et Simulations Proba

L2 Math - Algèbre fondamentale

2018 - L3 Math - Probabilités et Simulations Proba

L2 Math - Analyse fondamentale

2017 - L2 Math Info - Algèbre fondamentale

Experience abroad

2016 - Erasmus Traineeship / Stage

Paris (FRANCE) | Language: French and English | Duration: 3 months and a half

From September 2016 to mid December 2016 I did a research internship in Laboratoire de Probabilités et Modèles Aléatoires, in Paris (<http://www.lpma-paris.fr>). I worked with professor Giambattista Giacomin on the Kuramoto model and on synchronisation phenomena.

2016 - Erasmus Studio

Paris (FRANCE) | Language: French | Duration: 6 months

From January 2016 to July 2016, I finished the exams of the Master in Mathematics through the Erasmus program in Université Pierre et Marie Curie (<http://www.upmc.fr>).

2015 - Assistant Researcher / Visiting Student

Singapore (SINGAPORE) | Language: English | Duration: 2 months and a half

I worked in Singapore University of Technology and Design (<http://sutd.edu.sg/>) as a research assistant for professor Bikram Das. The main subjects were risk theory and (social) network analysis.

Languages and IT skills

Italian: Mother Tongue | **English:** Advanced C1/C2 | **French:** Advanced C1/C2.

IT languages: Python + fundamentals in LaTeX, C, R, SciLab, SQL, HTML-PHP-CSS.

Applications: Adobe(Photoshop, Premiere), Office(Word, Excel), Spyder, Jupyter.

Web: Wordpress.