

QUENTIN CORMIER

Email: qc2593@princeton.edu

Web page: <https://quentincormier.org>

Mobile Phone: +33762318494

EDUCATION

INRIA - Sophia-Antipolis, PhD in Mathematics, 2017-2020

Title: Long time behavior of a mean-field model of interacting spiking neurons.

Supervised by Etienne Tanré and Romain Veltz. Thesis defense: 15/01/21.

Jury: François Delarue, Pierre-Emmanuel Jabin, Eva Löcherbach (reviewer), Stéphane Mischler (reviewer), Denis Talay (invited member).

UPMC - University Pierre and Marie CURIE, Master of Mathematics: Probability and Stochastic Models, Paris, France, 2016-2017 - Graduated with highest honors.

Second year of master (M2) in probability theory.

Ecole Normale Supérieure de Lyon, Master of Computer Science, Lyon, France, 2013-2015

"Foundations of computer science" bachelor (L3) and master (M1): two years of general and advanced topics in computer science. Normalien at ENS Lyon.

PROFESSIONAL EXPERIENCES

Since August 2021:

Postdoc at Princeton, ORFE department, PI: René Carmona.

Teaching

- 2021 (30 hours - instructor), Princeton University: *ORF 309: Probability and Stochastic systems* for undergraduate students. Large class with 110 students.
- 2019 (12 hours - tutorial classes), Polytech Sophia: *Numerical probability methods* for Master 2 students.
- 2019 (24 hours - tutorial classes), University of Côte d'Azur: *Introduction to Probability* for second year students in mathematics.
- 2018 (36 hours - tutorial classes), University of Côte d'Azur: *Introduction to Analysis* for first year students in physics.

Scientific/Engineering consulting Silicon Mobility, Sophia Antipolis, France, 2019 (25 days - helping to design optimization algorithms for the control of electric motors).

Internships

Google Research, Research internships supervised by Maya Gupta.

- New York, USA, May 2015 - August 2015 (Master 1 internship).
- Mountain View, USA, March 2016 - June 2016.

TOSCA team, INRIA, Research internships at Sophia-Antipolis, France, supervised by Etienne Tanré and Romain Veltz.

- October 2015 - March 2016.
- May 2017 - July 2017 (Master 2 internship).

PUBLICATIONS

5. [A bifurcation analysis of some McKean-Vlasov equations](#) [Arxiv](#), (preprint).
4. [Hopf bifurcation in a Mean-Field model of spiking neurons](#) (with Etienne Tanré and Romain Veltz), [Electronic Journal of Probability](#) (2021).

3. [A mean-field model of Integrate-and-Fire neurons: non-linear stability of the stationary solutions](#), [Arxiv](#), (preprint).
 2. [Long time behavior of a mean-field model of interacting neurons](#) (with Etienne Tanré and Romain Veltz), [Stochastic Processes and their Applications](#) (2020).
 1. [Launch and Iterate: Reducing Prediction Churn](#) (with Mahdi Milani Fard, Kevin Canini and Maya Gupta), [Advances in Neural Information Processing Systems 29](#) (2016).
- PhD Thesis: [Long time behavior of a mean-field model of interacting spiking neurons](#) (2021).

ATTENDANCE TO CONFERENCES, WORKSHOPS AND SEMINARS

International conferences

- 03/11/21 - Mean-Field Models for Interacting Agents, IMSI, Chicago (oral presentation)
- 28/06/21 - ICMNS 2021, online, (oral presentation)
- 04/06/21 - Biohasard 2021, online, (oral presentation)
- 05/07/19 - Nonlinear Processes and their Applications, Institut Camille Jordan (oral presentation and poster presentation)
- 04/04/19 - Mean-field approaches to the dynamics of neuronal networks, EITN, Paris, (oral presentation)
- 25/06/19 - ICMNS 2019, Copenhagen (poster presentation)
- 11/06/18 - ICMNS 2018, Juan-Les-Pins, (poster presentation)

Seminars

- 06/10/21 - INRIA Ascii Seminar (online)
- 05/02/21 - Institut de mathématiques de Toulouse, séminaire Mathématiques pour la biologie (online)
- 27/11/20 - PEIPS Seminar at Ecole Polytechnique (online)
- 19/10/20 - Talk for the ChaMaNe ANR (online)
- 02/10/20 - SAMM Seminar, Paris 1
- 06/02/19 - TOSCA Seminar, Inria Sophia Antipolis

SKILLS

- Computing skills** Programming languages: -Proficient in Ocaml, Python and Julia
 -Knowledge of C, C++, Mathematica.
- Tools: Git, Latex, Linux
- Languages** French (mother tongue), English (fluent)