

Guillaume Conchon- -Kerjan

Curriculum Vitae - Lecturer in Mathematics

King's College London
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Professional Experience

Working

- April 2023 - **Lecturer in Mathematical Data Science**, King's College London
July 2021- March 2023 **Research Associate (Postdoc)**, University of Bath, Advisor: Daniel Kious
2017-2021 **PhD**, Laboratoire de Probabilités, Statistiques et Modélisation (LPSM), Université Paris Diderot, Supervisor: Justin Salez

Internships and dissertations

- June 2021 **PhD Thesis**, *Sparse random graphs: from local specifications to global properties*, Supervised by Justin Salez
March 2016 - **Internship at Oxford's Statistics Department**, *Scaling limits of a critical random graph with i.i.d. power-law degrees*, Supervised by Christina Goldschmidt
June 2016 **Master's Thesis**, *An SDE for a path-valued Markov process*, Supervised by Vincent Bansaye and Sylvie Méléard
2016 **Master's Thesis**, *An SDE for a path-valued Markov process*, Supervised by Vincent Bansaye and Sylvie Méléard
2014 **Bachelor's Thesis**, *Classification of compact surfaces in dimension 2*, joint with Guillaume Maillard, supervised by Antoine Touzé

Teaching

- 2017-2021 **Teaching assistant**, Université Paris Diderot, Paris, France
2013-2016 **Colleur in CPGE (~ oral examiner at undergraduate level)**, Lycées Condorcet & Louis-le-Grand, Paris, France

Organizing

- June 2023 **Co-organizer of the workshop "Random Walks in Bath"**, with Daniel Kious and Augusto Teixeira, University of Bath
2022- **Co-organizer of the Probability Internal Monthly Seminar**, Prob-L@B, University of Bath
2021- **Organizer of a reading group on percolation**, Prob-L@B, University of Bath
2018-2019 **Co-organizer of the PhD Students' Probability Seminar**, LPSM, Université de Paris

Education

- 2015-2016 **Master 2 (MS) in Probabilities**, Université Pierre et Marie Curie, Paris
2013-2014 **Licence (BS) in Mathematics**, École Normale Supérieure de Paris
2013 **Admission to École Normale Supérieure de Paris**
2011-2013 **CPGE in MP (Mathematics and Physics)**, Lycée Louis-le-Grand, Paris, France
2011 **Scientific Baccalauréat & Abitur (French and German high school diplomas)**, Lycée International, Saint-Germain-en-Laye

Publications and preprints

- Publications Conchon–Kerjan G. *Cutoff for random lifts of weighted graphs*, The Annals of Probability, Jan. 2022, pp. 304-338. DOI: 10.1214/21-AOP1534, [available here](#).
- Conchon–Kerjan G. & Goldschmidt C. *The stable graph: the metric space scaling limit of a critical random graph with i.i.d. power-law degrees*, The Annals of Probability, 51(1): 1-69 (January 2023), [available here](#).
- Conchon–Kerjan G. *Anatomy of a gaussian giant: supercritical level-sets of the free field on random regular graphs*, Electronic Journal of Probability, 28: 1-60 (2023). DOI: 10.1214/23-EJP920, [available here](#).
- Preprints 2023 Conchon–Kerjan G., *Speed of the random walk on the supercritical Gaussian Free Field percolation on regular trees* (submitted), [available here](#).
- 2022 Conchon–Kerjan G., Kious D. & Mailler C. *Scaling limit of critical random trees in random environment* (submitted), [available here](#).

Talks at seminars and conferences

- March 2023 **London Analysis and Probability Seminar, Imperial College**
"A Gaussian cousin to the Erdős–Rényi graph "
- March 2023 **Probability Seminar, King’s College London**
"Gaussian Free Field percolation on regular graphs: a cousin of Erdős–Rényi"
- December 2022 **Probability Seminar, University of Sheffield**
"Scaling limits of a branching process in varying environment"
- October 2022 **Probability Seminar, University of Cambridge**
"Scaling limits of a branching process in varying environment"
- June 2022 **42nd Conference on Stochastic Processes and Applications, Wuhan/online**,
Invited session *Mixing Times of Markov Chains*
"Entropic cutoff for the random walk on random lifts of Markov chains"
- June 2022 **Probability Seminar, University of Oxford**
"Scaling limits of a branching process in varying environment"
- June 2022 **Probability Seminar, Universität zu Köln**
"Scaling limits of a critical Galton-Watson tree in random environment"
- May 2021 **Seminar in Probability Theory and Statistics, University of Basel**
"Level-set percolation of the GFF on regular graphs: emergence of a Gaussian giant"
- June 2019 **Les Probabilités de Demain, Université Paris-Diderot, Paris**
"Cutoff for the random walk on lifts of graphs"
- May 2018 **Franco-Dutch YEP Workshop, TU Eindhoven, Eindhoven**
"Metric scaling limit for a critical configuration model with power-law degrees"

Reviewing Work

Annals of Applied Probability, Electronic Journal of Probability, Stochastic Processes and their Applications

Mathematics Outreach

- 2013-2021 **Teacher and Staff Member in the French training program for the International Mathematical Olympiad**, <http://maths-olympiques.fr/>, teaching, organization of training camps, team leader in competitions
- 2019-2020 **Member of Animath's Board**, <https://animath.fr/>, an association promoting math towards the youth and the general public
- 2018 **Teacher in Tech Scouts Summer School**, <https://techscouts.harbour.space/>, International summer camp for high school students, held in Barcelona
math classes oriented towards olympiads
- 2012,2014 **Team leader at ITYM**, <http://www.itym.org/Home>, an international team competition initiating highschool students to research
- 2015-2018 **Jury and Problem selection committee member at TFJM²**, <https://tfjm.org/>, a French team competition initiating highschool students to research
- 2017,2018 **Participation to the Fête de la Science**, scientific activities in primary schools
- 2015-2016 **Organizer of Parimaths**, <http://www.parimaths.fr/>, a weekly math club for high-school students, oriented towards olympiads and general math culture

Languages

French Mother Tongue
German Fluent
English Fluent
Italian Intermediate

Hobbies

Music (violin and singing), Wine tasting (WSET 3 Diploma), Swimming