

Bastien Dubail

Third-year Ph.D. student in Mathematics at ENS,
INRIA Paris and Aix-Marseille Université

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📄 <https://bdubail.github.io/>

Education

2020- **Ph.D. in Mathematics**, INRIA Paris, ENS and Aix-Marseille Université.

Supervisors: Laurent Massoulié and Charles Bordenave

2018-2019 **Master in Mathematics**, ENS Lyon.

2016-2020 **Student at Ecole Normale Supérieure de Lyon**.

Publications

- [1] Charles Bordenave and Bastien Dubail. Markovian Linearization of Random Walks on Groups. *International Mathematics Research Notices*, 05 2022. doi:10.1093/imrn/rnac045.
- [2] Bastien Dubail and Laurent Massoulié. Accelerating Abelian Random Walks with Hyperbolic Dynamics. *Probability Theory and Related Fields*, 04 2022. doi:10.1007/s00440-022-01128-x.

Teaching

Tutorials given at Université Paris-Cité (2020-2023)

Fall 2022 Probability, Master's degree (1st year)

Spring 2022 Analysis, Maths-Social Sciences bachelor's degree (1st year)

Fall 2021 Analysis, CS-Maths bachelor's degree (2nd year)

Spring 2021 Analysis, Maths-Social Sciences bachelor's degree (1st year)

Supervision of math projects, Maths-Social Sciences bachelor's degree (1st year)

Fall 2020 Tutoring for bachelor students

Talks, Seminars, Workshops

2021 **Workshop "The Cutoff phenomenon for Finite Markov Chains"**, Oberwolfach, Nov. 21-27.

Workshop "On Future Synergies for Stochastic and Learning Algorithm", CIRM, Sep. 27 - Oct. 01.

2020 **Strukturtheorie Seminar**, TU Graz (virtual), Dec. 17.

Workshop "Spectra, Algorithms and Random Walks on Random Networks", CIRM, Jan. 13-17.

Research Experience

Research internships

2020 **The linearization trick for random walks on finitely generated groups**, Institut de Mathématiques de Marseille, CMI Marseille, under the supervision of Charles Bordenave.

2019-2020 **Mixing times for graph dynamics**, INRIA, Paris, under the supervision of Laurent Massoulié.

2019 **The cutoff phenomenon and random walks on groups**, Institut de Mathématiques de Marseille, CMI Marseille, under the supervision of Charles Bordenave.

- 2018 **Invasion percolation**, *University of British Columbia*, Vancouver, BC, under the supervision of Omer Angel.
- 2017 **Weil's conjectures**, *Institut Elie Cartan de Lorraine*, Vandœuvre-lès-Nancy, under the supervision of Damien Mégy.

Promotion of Mathematics

- 2022 Participation to Fête de la Science (annual nationwide event for promotion of science)
- 2018 Participation to Maths à Lyon (activities organised in high schools and middle schools of Lyon to promote mathematics)

Language Skills

French Native
English Fluent