Nicolas Bouchot

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Academic position

Oct. 2021 - **PhD student**, *Laboratoire de Probabilités, Statistiques et Modélisation (LPSM)*, Sorbonne Université, Paris
Polymer models: random penalization by the range, walks in random interlacement and localized random walks.
PhD advisors: Quentin Berger (LPSM), Julien Poisat (CEREMADE)

Education

2020-21 **Master in Mathematics - 2nd year - *Probabilities and Random models***, *Sorbonne Université*, Paris VI
Thesis : *Auto-attractive polymers and random walks* - Supervisor: Quentin Berger (LPSM)

2019-20 **Master in Mathematics - 1st year**, *Sorbonne Université*, Paris VI
Thesis : *Quantum axioms: from propositions to EPR paradox* - Supervisor: Thierry Lévy (LPSM)

2017-19 **Bachelor degrees in Mathematics & Physics**, *Sorbonne Université*, Paris VI
Bi-disciplinary course track.

Teaching activities

2022-23 **Moniteur (teaching assigment for PhD students)**, *Sorbonne Université*, Paris
Measure theory and probabilities (3rd year Undergraduate) 2023 ;
Lebesgue integration on the real line (2nd year Undergraduate) 2023 ;
Mathematics for sciences (1st year Undergraduate) 2022.

2019-20 **Mentoring**, *Sorbonne Université*, Paris
Measure theory, probability theory.

Scientific activities

Invited talks at conferences

mar. 2023 Localization phenomena (CIRM, Marseille) ;
apr. 2023 Probabilités de demain (Institut Henri Poincaré, Paris) ;
jui. 2023 St Flour Summer school in probability.

Invited talks at seminars

jan. 2022 Groupe de Travail des Thésards (LPSM, Paris) ;
may 2022 Probability seminar (IRMAR, Rennes) ;
dec. 2022 Groupe de Travail des Thésards (LPSM, Paris) ;
nov. 2023 Séminaire doctoral (LPSM, Paris).
mar. 2024 Séminaire de probabilités (MODEL'X, Nanterre).

Workshops/seminars

2022-23 Workshop on Schramm-Loewner Evolution (LPSM, Paris).
2022-24 Organization of PhD student seminar (LPSM, Paris).

Others

Languages French (mother tongue), English (fluent), German (basics)
Computer skills Python, C++, LaTeX, Beamer, QtiPlot

List of publications/preprints

[1] N. Bouchot. "How thin do random interlacements have to be so that a random walk can see through it?" In preparation.

[2] N. Bouchot. "Macroscopic coupling of the random walk conditioned to stay in a ball with a random interlacement". In preparation.

[3] N. Bouchot. "Scaling limit of a one-dimensional polymer in a repulsive i.i.d. environment". In: *Electronic Journal of Probability* 29.none (2024), pp. 1–43. DOI: 10.1214/24-EJP1117.

[4] N. Bouchot. *Scaling limits for the random walk penalized by its range in dimension one*. Accepted for publication at ALEA. 2022. arXiv: 2202.11953 [math.PR].