
Academic position

- Sept. 2025 - Mar. 2029 **Post-doctoral fellow**, *Institut für Mathematik*, Universität Innsbruck, Austria
Project: rotors walks and displacement of branching random walks
- Oct. 2024 - Aug. 2025 **Attaché Temporaire d'Enseignement et de Recherche**, *CEREMADE*, Université Paris-Dauphine PSL, Paris
95 equivalent-hours of teaching
- 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

- 2025-29 **Post-doctoral fellowship**, *Universität Innsbruck*
Linear Algebra I (1st year Bachelor) 2025-26 ;
Random walk and electrical networks (1st year Master) 2026 ;
Analysis II (1st year Bachelor) 2026
- 2024-25 **Attaché Temporaire d'Enseignement et de Recherche (temporary position of teaching and research)**, *Université Dauphine PSL*, Paris
Statistical modelling (3rd year undergraduate, course in English).
- 2022-23 **Moniteur (teaching assignment 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) ;
- jul. 2023 St Flour Summer school in probability (St Flour, France) ;
- aug. 2024 Stochastic processes under constraints (Bielefeld, Germany).
- jul. 2025 Stochastic processes and Application (SPA 2025) (Wroclaw, Poland).

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).
- nov. 2024 Probas du vendredi (LPSM, Paris).
- may 2025 Inn'formal Seminar (Innsbruck, Austria).
- mar. 2026 Probability seminar (Padova, Italy).

Organisation of workshops/seminars

- 2022-23 Study group on Schramm-Loewner Evolution (LPSM, Paris).
- 2022-24 PhD student seminar (LPSM, Paris).

Others

- Languages French (native), English (fluent), German (basics)
- Computer skills Python, C++, \LaTeX , Beamer, Git, QtiPlot

List of publications/preprints

- [1] Q. Berger and N. Bouchot. *Some properties of the principal Dirichlet eigenfunction in Lipschitz domains, via probabilistic couplings*. 2025. arXiv: 2408.15858 [math.PR].
- [2] N. Bouchot. *A confined random walk locally looks like tilted random interacements*. 2024. arXiv: 2405.14329 [math.PR].
- [3] N. Bouchot. *Covering of an inner subset by the confined random walk*. 2025. arXiv: 2511.08817 [math.PR].
- [4] N. Bouchot. *How thin does random interlacement have to be so that a random walk can see through it?* 2025. arXiv: 2505.15260 [math.PR].
- [5] N. Bouchot. “Scaling limit of a one-dimensional polymer in a repulsive iid environment”. In: *Electronic Journal of Probability* 29 (2024), pp. 1–43.
- [6] N. Bouchot. “Scaling limits for the random walk penalized by its range in dimension one”. In: *ALEA* 21 (2024), pp. 791–813.