

Nicolas Forien

Curriculum Vitae

Positions

- 2022– **Postdoc position**, *La Sapienza University*, Rome, hosted by Lorenzo Taggi.
2020–2022 **Teaching and research assistant (A.T.E.R.)**, *Aix-Marseille University*.

Education

- 2017–2020 **PhD Thesis**, *Mathematics department of ENS Paris*.
with Raphaël Cerf, on the subject "About self-organized criticality"
2013–2017 **Graduation from École normale supérieure**, *Paris*.
2016–2017 **Master in Probability**, *Université Paris-Sud (Orsay)*.
2015–2016 **Master in Theoretical Physics**, *ENS Paris*.
2013–2014 **Bachelor of Mathematics**, *ENS Paris*.

Publications

- **Some toy models of self-organized criticality in percolation** (2022, with R. Cerf), *ALEA, Lat. Am. J. Probab. Math. Stat.* 19, 367-416, www.doi.org/10.30757/ALEA.v19-14
- **A planar Ising model of self-organized criticality** (2021), *Probab. Theory Related Fields* 180, 163-198, www.doi.org/10.1007/s00440-021-01025-9

Preprints

- **Active phase for Activated Random Walks on the Lattice in all Dimensions** (2022, with A. Gaudillière), www.arxiv.org/abs/2203.02476
- **An extension of the Ising-Curie-Weiss model of self-organized criticality with a threshold on the interaction range** (2021), www.arxiv.org/abs/2110.07949
- **An extension of the Ising-Curie-Weiss model of self-organized criticality with long range interactions** (2021), www.arxiv.org/abs/2110.07948

Invited lectures

- June 2022 **Italian meeting on probability and mathematical statistics**, *University of Bologna*.
May 2022 **Workshop "Random Walks, Reinforcement and Localization"**, *CIRM, Marseille*.
Mar. 2022 **Probability seminar**, *Institut de Mathématiques de Marseille*.
Mar. 2022 **Probability seminar**, *Institut Fourier, Grenoble*.
Nov. 2020 **Probability seminar**, *Institut de Mathématiques de Marseille*.
Aug. 2020 **Bernoulli-IMS One World Symposium**.

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- June 2020 **PhD students seminar**, *Laboratoire de mathématiques d'Orsay*.
- Mar. 2020 **Presentation for Animath**, *Lycée Jacques Decour, Paris*.
- Feb. 2020 **Probability seminar**, *Rennes*.
- Feb. 2020 **Workshop of the team ANR Percolation and First Passage Percolation**, *Grenoble*.

Conferences, seminars

- April 2022 **Annual conference "Random Geometric Systems"**, *WIAS, Berlin*.
- May 2019 **Colloquium "Les Probabilités de demain"**, *Université Paris Diderot*.
- July 2018 **Probability Summer School**, *Saint-Flour*.
- Jan. 2018 **Itzykson seminar (statistical mechanics)**, *IHES, Bures-sur-Yvette*.
- Jan. 2018 **Young Statisticians and Probabilists Day**, *Institut Henri Poincaré, Paris*.
- Mar. 2016 **Biophysics thematic school**, *Les Houches*.
- July 2014 **Summer school "biology for mathematicians"**, *CIRM, Marseille*.

Teaching experience

- 2020–2022 **Teaching and research assistant (A.T.E.R.)**, *Aix-Marseille University*.
Lectures and Exercise sessions in algebra and analysis for first year students.
- 2017–2020 **Tutorials of Mathematics**, *Multidisciplinary undergraduate degree (CPES) of Paris Sciences et Lettres (PSL)*.
General mathematics (algebra, analysis and probability) for 2nd year students.
- 2014–2017 **Oral examinations in preparatory classes**, *Lycée Louis-le-Grand, Paris*.
- 2013–2014 **Tutor**, *TalENS*, Equal opportunity programme of ENS, on the topic of genetics..

Pedagogical trainings

- Mar. 2020 **"Discovery of problem and project-based learning"**, *Univ. Paris-Saclay (Orsay)*.
- Feb. 2020 **"Boost your teaching with active learning"**, *UVSQ (Versailles)*.
- June 2018 **"Feedback on teaching at the University"**, *Université d'Orsay*.

Miscellaneous

- Fluent in **English** (TOEFL 104/120), **Italian** (C1 level) and **German**.
- First national prize in the French Mathematics Olympiads (2010).
- Programming languages C and C++.

References

- **Raphaël Cerf**, Professor, Université Paris-Saclay / ENS Paris : raphael.cerf@gmail.com.
- **Alexandre Gaudillière**, Researcher, CNRS / Institut de Mathématiques de Marseille : alexandre.gaudilliere@math.cnrs.fr.

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