

Federico Ghimenti

Physics PhD student

Laboratoire Matière et Systèmes Complexes

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Education

- 2021–Present **PhD**, *Université Paris Cité*, Laboratoire Matière et Systèmes Complexes.
Supervisor: Frédéric van Wijland **Title**: *Glassiness and chaotic dynamics in high space dimensions*
- 2019–2021 **M. Sc.**, *ENS ICFP*.
Theoretical Physics, **Final Grade**: 17.2/20
- 2016–2019 **B. Sc.**, *Sapienza University of Rome*.
Physics, **Final grade**: 110/110 *cum laude*
- 2011–2016 **Diploma**, *Liceo Scientifico Talete*, Rome.
High School education, **Final grade**: 100/100

Internships

- 2021 **M2 Internship**, *Laboratoire Matière et Systèmes Complexes, Université de Paris Cité*, **Supervision**: Frédéric Van Wijland. **Project**: *Accelerating Brownian Dynamics*.
- 2020 **M1 Internship**, *LPENS, Paris*.
Supervision: Giulio Biroli, Gilles Tarjus, Misaki Ozawa. **Project**: *Plastic flow of two-dimensional solids*

Teaching

- 2023 *Teaching assistant*, Electromagnetism (Bachelor, 2nd year) IUT Université Paris Cité
- 2023 *Teaching assistant*, Logical Electronics (Bachelor, 1st year), IUT Université Paris Cité
- 2022 *Teaching assistant*, Optics (Bachelor, 1st year) IUT Université Paris Cité
- 2022 *Teaching assistant*, Logical Electronics (Bachelor, 1st year), IUT Université Paris Cité

Publications

- 2023 Federico Ghimenti, Misaki Ozawa, Giulio Biroli, and Gilles Tarjus. Shear-induced phase behavior and topological defects in two-dimensional crystals. *arXiv preprint arXiv:2310.05094*, 2023.
- 2023 Federico Ghimenti, Ludovic Berthier, Grzegorz Szamel, and Frédéric van Wijland. Sampling efficiency of transverse forces in dense liquids. *arXiv preprint arXiv:2307.02840*, 2023.
- 2022 Federico Ghimenti and Frédéric van Wijland. *Accelerating, to some extent, the p -spin dynamics*. *Phys. Rev. E*, volume 105, page 054137. American Physical Society, May 2022.

Awards

- 2021–2024 **PhD fellowship** from Ecole Doctorale Paris Ile de France (EDPIF)
- 2019–2021 **ICFP scholarship** for International students
- 2016–2019 **Excellent Student** at *Sapienza University of Rome*.

Talks and Posters

- Sep 2023 Talk, Probabilistic sampling for physics
- June 2023 Seminar, M.Michel group

May 2023 Poster, Cecam workshop on *Mesoscale modelling of driven disordered materials: from glasses to active matter*

March 2023 Seminar, K.Miyazaki group

March 2023 Seminar, A. Ikeda and H. Ikeda group

March 2023 Seminar, H. Yoshino Lab

Feb 2023 Seminar, Yukawa Institute for Theoretical Physics

April 2022 Poster, Cecam workshop, *Numerical techniques for nonequilibrium steady states*

June 2022 Poster, *The Beg Rohu Summer School*, poster

Computer Skills

Languages C, Python, HTML, Latex, Mathematica

Softwares Ovito, Excel, PowerPoint

Other

Languages **Italian** (Mothertongue), **English** (Fluent), **French** (fluent)

Interests Piano, hiking, climbing, music