



Julien MALARTRE

-  Born on October 16, 2000 in Le Puy-en-Velay, Haute-Loire, France
-  Address: Ermont, Val-d'Oise, France
-  Affiliation: Université Sorbonne Paris Nord, Seine-saint-Denis, France
-  Contact: malartre@math.univ-paris13.fr

PHD STUDENT IN MATHEMATICAL PHYSICS

I am a second-year PhD student at Laboratoire Analyse, Géométrie et Applications (LAGA), Université Paris 13 (Villetaneuse, France), under the supervision of Maher ZERZERI. The title of my PhD thesis is *Phase Space Analysis of Self-Interacting Quantum Field Theories*.

PUBLICATIONS

- [1] Z. Ammari, J. Malartre, and M. Zerzeri. “Higher-Order Approximation of Coherent State Dynamics in Self-Interacting Quantum Field Theories”. arXiv: 2603.06026. [Online]. Available: <https://arxiv.org/abs/2603.06026> pre-published.

TEACHING ACTIVITIES

- 2025 –2026 **Tutorials on Mathematical tools for computer science**, Bachelor’s in Computer Science – Year 2, Université Sorbonne Paris Nord, Villetaneuse, France.
Basic set theory and logic tutorials, Bachelor’s in Computer Science – Year 1, Université Sorbonne Paris Nord, Villetaneuse, France.
- 2024 –2025 **Linear algebra and algorithmics tutorials**, Bachelor’s in Computer Science – Year 1, Université Sorbonne Paris Nord, Villetaneuse, France.
Refresher tutorials in mathematics, Foundation Year, Université Sorbonne Paris Nord, Villetaneuse, France.

EDUCATION

- 2023 –2024 **Master’s degree in Mathematical Analysis** “Analyse, Modélisation, Simulation” with Highest Honors, Université Paris-Saclay, Orsay, France.
- 2023 **Competitive teaching examination in mathematics “agrégation”**, ranked 53th out of 345.
- 2020 –2021 **Bachelor’s degree in Mathematics** with High Honors, Magistère de mathématiques d’Orsay, Orsay, France.

- 2018 –2020 **French preparatory classes “CPGE”, in Mathematics and Physics**, Lycée du Parc, Lyon, France.
- 2018 **Franch Baccalaureate** with Highest Honors and Jury Congratulations, Lycée Simone Weil, Le Puy-en-Velay, France.

INTERNSHIPS AND RESEARCH PROJECTS

- 2024 4-month **Master’s degree internship** supervised Maher ZERZERI, LAGA, Université Sorbonne Paris Nord, Villetaneuse, France.
Propagation of Coherent States in Quantum Mechanics
- 2022 4-week **internship** supervised by Anna ROZANOVA-PIERRAT CentraleSupélec, MICS laboratory, Gif-sur-Yvette, France.
Boundary smoothness in imaging problems and inverse problems
- 2022 **Research group project** supervised by Stéphane NONNENMACHER, Institut de Mathématique d’Orsay, France.
Weyl’s law for the eigenvalues of the Laplacian in a bounded domain
- 2021 3-week **Bachelor’s degree internship** supervised by Cécile APPERT-ROLLAND, IJClab, Orsay, France.
Monte Carlo Algorithms and applications to intracellular transport
- 2021 **Bachelor’s degree research group project** supervised by Kévin DESTAGNOL, Institut de Mathématique d’Orsay, France.
Waring’s problem

SKILLS

- **L^AT_EX**
- **Python:** intermediate level
- **Word processing, Excel:** basic knowledge
- **Fist aid skills**

LANGUAGES

- **French:** native
- **English:** B2-C1
- **Spanish:** B1-B2
- **Portuguese:** A1

MISCELLANEOUS

- **Volunteer rescuer** since May 2021
- **Musician (piano) and choir member** since the age of 6
- **Horserider** since the age of 8