Jules Berry

PhD student in Applied Mathematics

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France
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Nationality : French

Education

October 2022 – Present — **PhD student in Applied Mathematics**, *University of Rennes – INSA Rennes*, Rennes, France
Supervised by : Olivier Ley (INSA Rennes) - Francisco Silva (University of Limoges).

2021–2022 — **Master 2 in Fundamental Mathematics**, *Analysis & Numerics Track*, University of Rennes 1

2020–2022 — **Master's degree in Fundamental Mathematics**, *University of Rennes 1*, Rennes, France, with Highest Honours

2017–2020 — **Bachelor's degree in mathematics** , *University of Lyon 1*, Lyon, France, with Honours

2015–2017 — **First Cycle**, *INSA Lyon*, Lyon, France

Internships

March-June 2022 — **Research internship**, *IRMAR – INSA Rennes*, Rennes, France
Subject : Mean Field Games on Networks.
Supervised by : Olivier Ley (INSA Rennes) - Francisco Silva (University of Limoges).

June-July 2021 — **Research internship**, *INRIA Rennes*, Rennes, France, SIMSMART team
Subject : Generalization of screening methods to quadratic programming problems.
Supervised by : Cédric Herzet (INRIA Rennes).

(Pre-)Publications

1. Jules Berry and Fausto Colantoni. Sticky diffusions on star graphs : characterization and Itô formula. Preprint, 2024
2. Jules Berry and Fabio Camilli. Stationary Mean Field Games on networks with sticky transition conditions. Preprint, 2024
3. Jules Berry, Olivier Ley, and Francisco J Silva. Approximation and perturbations of stable solutions to a stationary mean field game system. Preprint, 2024

Talks

October 2024 — **ANR COSS workshop**, *Sticky diffusion processes on networks and corresponding Mean Field Games*, Rennes, France

June 2024	**Summer School on Machine Learning and Optimal Control, Poster session**, *Approximation of non-differentiable nonlinear problems*, Gaeta, Italy
April 2024	**Seminario di Modellistica Differenziale Numerica, La Sapienza Università di Roma**, *Approximation of stable solutions to second order mean field game systems*, Rome, Italy
March 2024	**SMAI MODE conference, Poster session**, *Approximation of stable solutions to a stationary mean field game system*, Lyon, France
January 2024	**3rd International Conference on Variational Analysis and Optimization – In Honor of Boris Mordukhovich**, *A theorem of Brezzi, Rappaz, and Raviart from the point of view of variational analysis*, Santiago, Chile
January 2024	**Conference on Numerical methods for optimal transport problems, mean field games, and multi-agent dynamics**, *Approximation of stable solutions to a stationary MFG system*, Valparaiso, Chile

Teaching

2022-2025	**Analyse 3**, *INSA Rennes*, Exercise Sessions (48h/year)
	Topics : improper integrals, numerical series, power series, Fourier series, differential calculus, PDEs, optimization.
2022-2025	**Outils d'analyse pour l'ingénieur**, *INSA Rennes*, Exercise Sessions (10h/year)
	Topics : Lebesgue integrals, Fourier transform, complex analysis.

Awards

2024	**Poster Prize : First ex-aequo**, *SMAI MODE conference*, Lyon

Visits

March-May 2024	**Università di Roma la Sapienza**, *Invited by Fabio Camilli*, 3 months

Miscellaneous

2024 - Present	**Referee for**, *J. Math. Anal. Appl. (1), NoDEA (1)*

Languages

French	Mother Tongue
English	Proficient