

"The mathematician's patterns, like the painter's or the poet's must be beautiful; the ideas like the colours or the words, must fit together in a harmonious way. Beauty is the first test: there is no permanent place in the world for ugly mathematics." — G. H. Hardy

Education

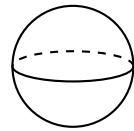
- 2025 – Today **M2 AMS**, *Université Paris-Saclay*, France
Master of Science in Mathematical Modelling.
- 2024 – 2025 **M1 Hadamard**, *École Normale Supérieure Paris-Saclay*, Gif-sur-Yvette, France
Master of Science 1 in Mathematics. Courses included Algebra, Functional Analysis, Probability Theory, Algebraic Topology, Geometry, Numerical Optimization and Mathematical tools for Image Processing. The end of year was spent in a research internship on the topic of Numerical Analysis of Stochastic Differential Equations on Lie Groups.
- 2023 – 2024 **Magistère of Mathematics (1st year)**, *École Normale Supérieure de Rennes*, Rennes, France
Result : Success at the entrance exam of the ENS Paris-Saclay (Rank 9).
- 2021 – 2023 **MP2I/MPI***, *Lycée Paul Valéry*, Paris 12e
Result : accepted into l'École Normale Supérieure de Rennes.

Work experience and internships

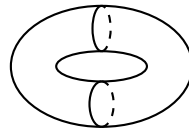
Research experience

- April 2025 — July 2025 **Research internship**, *Korteweg-de Vries Institute for Mathematics*, Amsterdam, Netherlands
Research Internship done at the end of my first year of Masters (M1 Jacques Hadamard). It was supervised by Sonja Cox and Erwin Luesink. You can access my report [here](#).
During this internship, I worked on :
 - Symplectic techniques for stochastic differential equations on symplectic manifolds;
 - A proof of the ergodicity of the invariant measures of Langevin Diffusions on compact Lie groups under the assumption of Hörmander's condition.

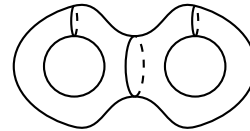
May 2024 — **Research internship**, *Laboratoire de Mathématiques d'Orsay*, Orsay, France
 July 2024 Magistère de mathématiques de Rennes students must spend at least six weeks in a research internship at the end of the first year. Anne Vaugon supervised mine at the Laboratoire de Mathématiques d'Orsay. You can access my report [here](#) (there's only a french version for now).
 During this internship, I worked on :
 ○ Basics of Morse Theory;
 ○ A proof of the classification of compact, connected, orientable and closed surfaces.



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$T_1 = \mathbb{S}^2$



$T_2 = \mathbb{T}^2 \# \mathbb{T}^2$

Work experience

Sep 2024 – **Mathematics examiner (Khôlleur MPI/MPI*)**, *Lycée Paul Valéry*, Paris 12e
 Today I select exercises and grade CPGE students in weekly mathematics oral exams of 1 hour duration.
 Since 2022 **Private lessons in Mathematics**, *Independant*

Computer Skills

Programming Java, OCaml, C, Python, Javascript.
 Tools \LaTeX , git, UNIX systems.

Languages

French Fluent
 English C1
 Arabic Fluent

Interests

Academic Numerical Analysis, Analysis of SDEs and SPDEs, Probability Theory, Analysis of PDEs, Mathematics for Medical Imagery, Differential Geometry, Calculus of Variations and Optimal Transport
 Other Video games (Minecraft, Strategy games, construction and management simulation), Tarot, 3D art...