

Eliot HECKY

PhD student in Motivic Homotopy Theory at University of Milan

Education

- 2024 - now **PhD in motivic homotopy theory**, *University of Milan*.
Advisor : Paul Arne Østvær
Subject : to be defined
- 2023 - 2024 **Master's degree (M2) in fundamental Mathematics**, *École Normale Supérieure*, Université de Rennes.
Algebra and Geometry curriculum.
- 2022 - 2023 **Master's degree (M2) in teaching Mathematics**, *École Normale Supérieure*, Rennes.
Option C - Formal Calculus.
Ranked 7th place at the national competitive exam Agrégation externe de Mathématiques.
- 2021 - 2022 **Master's degree (M1) in fundamental Mathematics**, *École Normale Supérieure*, Rennes.
First class honours (rank 1).
- 2020 - 2022 **Double-degree bachelor's (L3) in Computer Science**, *École Normale Supérieure*, Rennes.
First class honours.
- 2020 - 2021 **Bachelor's degree (L3) in fundamental Mathematics**, *École Normale Supérieure*, Rennes.
First class honours (rank 1).
- 2018 - 2020 **Classes Préparatoires aux Grandes Écoles (CPGE)**, *Lycée Kléber*, Strasbourg.
MPSI, MP*, with specialization in Computer Science
Received with a 4 year scholarship at the École Normale Supérieure in Rennes.
- 2018 **Baccalauréat (S)**, *Lycée Camille Sée*, Colmar.
First class honours, with specialization in Mathematics.

Internships and Directed Readings

- Summer 2024 **M2 research internship, supervised by Joseph Ayoub**, *University of Zurich*.
Subject : Motivic Infinite Loop Spaces.
- Summer 2022 **M1 research internship, supervised by Olivia Caramello**, *Institut des Hautes Études Scientifiques (IHES)*.
Subject : Topos theory in Algebraic Geometry and Logic.

16A, rue Saint-Louis – 35 000 Rennes

📞 06 95 05 50 28 • ✉ eliot.hecky@ens-rennes.fr
🌐 perso.eleves.ens-rennes.fr/people/eliot.hecky/

Summer 2021 **L2 research internship, supervised by Dragos Fratila, IRMA, Strasbourg.**
Subject : Representations of quivers, Gabriel's and Kac's theorems.

Teaching

- Fall 2024 **TD (tutorial classes) in Analysis**, *Second and third year of Engineering School, INSA Rennes.*
- Spring 2024 **TD (tutorial classes) in Differential Geometry**, *Second year of Engineering School, INSA Rennes.*
- Fall 2023 **TD (tutorial classes) in Mathematics for Biology**, *First year of bachelor's (L1) in Biology, Université de Rennes.*

Other Duties

- TFJM² Jury at regional phases of the TFJM² tournament, in spring 2024.
Jury at regional phases of the TFJM² tournament, in spring 2022.

Languages

- | | | | |
|---------|---------|---------|-------------------------|
| French | Native. | German | High-school level (B2). |
| English | Fluent. | Italian | Complete beginner. |

Computer Skills

- | | | | |
|--------|-----------------|----------------|----------------------|
| Python | Excellent level | \LaTeX | Good level |
| C++ | Good level | Lean4/Mathlib4 | Beginner, interested |
| C | Good level | Rust | Good level |

Interests and Hobbies

- In mathematics Algebra and geometry in general ; in particular Algebraic Geometry and Motives, Homotopy theory, their links (especially Motivic Homotopy Theory), ...
Fighting against discriminations, especially gender-based, in a general way and also in Mathematics, where cisgender men are extremely over-represented.
- Mathematical Art Making Mathematics more visual with generative art (see the strange attractor on the first page), illustrating concepts and theorems, ...
- Popularization Anything meant to introduce mathematical ideas to the general public : books, videos, ...

16A, rue Saint-Louis – 35 000 Rennes

☎ 06 95 05 50 28 • ✉ eliot.hecky@ens-rennes.fr
🌐 perso.eleves.ens-rennes.fr/people/eliot.hecky/