# Edouard Feingesicht

## Background

- 2024-2025 Teaching Assistant in mathematics, Université de Caen Normandie, (LMNO)
- 2021-2024 PhD in Mathematics, Université de Caen Normandie, (LMNO)

Advisor: Eddy Godelle

Title: Structure groups of solutions to the Yang-Baxter equation

- 2021 **Agrégation de Mathématiques**, Option C (Algebra and formal calculus), (french teaching exam)
- 2018-2020 **Master degree Mathematics and Applications**, *Pure Mathematics*, Sorbonne Université, Paris with highest honour
- 2015-2018 **Double-degree Mathematics-Physics**, Sorbonne Université, Paris with high honour
  - 2015 **Baccalauréat General Scientific**, Option: Computer Science, Lycée Notre-Dame de Boulogne, Boulogne-Billancourt

## Experiences

2020 Research Internship, Master's Thesis

Advisors: Vladimir Dotsenko, Eric Hoffbeck Title: Gröbner basis for algebraic operads

2019 Research Project, Sorbonne Université

Advisor: Benoït Stroh

Title: Sheaf theory and Cousin problems

Summer 2017 Laboratory internship, Observatoire de Paris (SYRTE), (10 weeks)

Advisor: Stéphane Guérandel

Title: Computing the evolution of the density matrix for Cesium

## Organization

- Oct. 2024 Co-organizer, From Garside to Yang-Baxter (Caen), With: with: E. Godelle, V. Lebed
- 2023-2024 **Co-organizer**, Young researchers Working Group on Elliptic Curves (Caen), with: Francesco Iudica, Alexis Lucas
- 2022-2024 Co-organizer, Young researchers seminar of the LMNO (Caen), With: Francesco Iudica

#### Publications

2024 Dehornoy's class and Sylows for set-theoretical solutions of the Yang-Baxter equation, International Journal of Algebra and Computation, Vol. 34, pp. 147-173

## Pre-publications

2024 Indecomposability and irreducibility of monomial representations for settheoretical solutions to the Yang-Baxter equation, with C. Dietzel & S. Properzi, arXiv:2409.10648.

#### Skills

Languages French (native), English (Fluent), German (Basics)

Programming GAP, SageMath, LaTeX, Python, Lua, Java, C++

#### **Talks**

- 2021-2024 Groups and Braids, Participation in a Working Group (Caen, France)
- Jan. 2024 Hecke algebras for the Yang-Baxter Equation, Working Group (Caen, France)
- July 2023 Germs and Sylows for structure group of solutions to the Yang-Baxter equation, Young Researchers Algebra Conference 2023 (L'Aquila, Italy)
- Juin 2023 Germs and Sylows for structure group of solutions to the Yang-Baxter equation, Groups, Rings and the Yang-Baxter equation 2023 (Blankenberge, Belgium)
- Feb. 2023 Germs and Sylows for structure group of solutions to the Yang–Baxter equation, VUB Algebra Research Group Seminar (Brussels, Belgium)
- Jan 2023 Germes et Sylows pour les groupes de structure des solutions de l'équation de Yang-Baxter, LMNO Algebra and Geometry seminar (Caen, France)
- June 2022 **14th days of the Normandie-Mathématiques Federation**, (Diffusion of Mathematics)
- Mar. 2022 An introduction to Coxeter-like groups, Algebra Days in Caen 2022: from Yang–Baxter to Garside (Caen, France)
- Dec. 2021 **Groupes de structure des équations de Yang–Baxter**, Young researchers seminar of the LMNO (Caen, France)

#### Formation

- Feb. 2024 Winter Braids XIII (Montpellier, France), School on braids and low dimensional topology
  - 2023 **Teaching Formation**, ED MIIS (Caen, France)
- Feb. 2023 Winter Braids XII (Tours, France), School on braids and low dimensional topology
- Sep. 2022 Braid meeting 2022: Generalized braid groups (Amiens, France)
- June 2022 The algebra of the Yang-Baxter equation (Będlewo, Poland)
- Dec. 2021 Winter Braids XI (Dijon, France), School on braids and low dimensional topology
- Apr. 2021 Scientific Integrity Formation, ED MIIS (Caen)

### **Teachings**

- 2024-2025 Undergraduate mathematics (Caen):
  - O Linear Algebra (3<sup>rd</sup> year) (35h)
  - Algorithmics (3<sup>rd</sup> year) (20h)
  - Analysis and numerical applications (2<sup>nd</sup> year) (50h)
  - O Geogebra for analysis (2<sup>nd</sup> year) (25h)
- 2021-2024 Teaching Assistant: Networks and Telecommunications (1st year):
  - Programming fundamentals (30h)
  - Mathematics of transmissions (40h)
  - O Mathematics of numerical systems (98h)
  - Mathematical analysis of signals (24h)