

Guillaume Dumas

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Employment

2025- **Novikov Postdoctoral Fellow**, *University of Maryland*, College Park, United States.
with Uri Bader

Education

- 2022-2025 **PhD**, *Institut Camille Jordan, Université Claude Bernard Lyon 1*, Lyon, France.
Some rigidity properties of semisimple groups (Link to HAL), supervised by Mikael de la Salle
- 2021-2022 **M2 Fundamental Mathematics**, *Ecole Normale Supérieure de Lyon*, Lyon, France.
Groups, Geometry, Dynamics and Model Theory
- 2020-2021 **M2 FEADéP**, *Ecole Normale Supérieure de Lyon*, Lyon, France.
Agrégation, rank 4
- 2019-2020 **M1 Mathematics**, *Ecole Normale Supérieure de Lyon*, Lyon, France.
- 2018-2019 **L3 Mathematics**, *Ecole Normale Supérieure de Lyon*, Lyon, France.
Cambridge Certificate in Advanced English (CAE) Grade A (Niveau C2)
- 2016-2018 **CPGE (MPSI-MP*)**, *Lycée Blaise Pascal*, Clermont-Ferrand, France.

Experience

- April-July **Internship**, *ICJ*, Lyon, France.
2022 On Gelfand pairs and semisimple Lie groups, supervised by Mikael de la Salle
- May-July **Internship**, *remote due to Covid-19*.
2020 On singular homology, supervised by David Barnes
- May-June **Internship**, *LPT*, Toulouse, France.
2019 On superpermutations, supervised by Ion Nechita.

Publications

1. **Regularity of matrix coefficients of a compact symmetric pair of Lie groups**, published in *Trans. Amer. Math. Soc* 377(10), 2024.
2. **Cartan motion groups: regularity of K -finite matrix coefficients**, published in *Can. Math. Bull.*, 2026.
3. **On quasi-homomorphism rigidity for lattices in simple algebraic groups**, accepted in *Groups Geom. Dyn.*
4. **Regularity of K -finite matrix coefficients of a semisimple Lie group**, Preprint, submitted.

Talks

1. **Non commutative harmonic analysis seminar**, *LMNO, Caen*, October 2023.
2. **PhD student seminar**, *ICJ, Lyon*, December 2023.
3. **Non commutative analysis on groups and quantum groups**, *Conference, Besançon*, December 2023.
4. **PhD student seminar**, *I2M, Marseille*, February 2024.
5. **Operator algebra seminar**, *IMJ-PRG, Paris*, October 2024.
6. **Lie theory seminar**, *Institut Elie Cartan, Nancy*, November 2024.
7. **Christmas tree in noncommutative geometry**, *Institut Denis Poisson, Orléans*, December 2024.
8. **Geometry, Groups et Dynamics Seinar**, *ENS, Lyon*, January 2025.
9. **Spectral theory and Geometry Seminar**, *Institut Fourier, Grenoble*, February 2025.
10. **Workshop Rigidity of isometric actions**, *CIRM, Marseille*, Mars 2025.
11. **Functional Analysis Seminar**, *University of Maryland, College Park*, September 2025.
12. **Working Group Sets, Groups and Algebra (two talks)**, *University of Maryland, College Park*, October 2025.
13. **Analysis Seminar**, *University of Waterloo, Canada*, November 2025.
14. **Seminar Analyse fonctionnelle**, *Laboratoire Paul Painlevé, Lille*, January 2026.

Teaching experience

- Spring 2026 **MATH 402 (Algebraic Structures)**, *University of Maryland, College Park*.
- Fall 2025 **MATH 241H (Calculus III Honors)**, *University of Maryland, College Park*.
- 2024-2025 **Teaching activity (48 hours)**, *Université Claude Bernard, Lyon*.
Analysis 4 (second year)
Kholles (oral interrogations, second year)
- 2023-2024 **Teaching activity (80 hours)**, *Université Claude Bernard, Lyon*.
Algebra 2 (first year)
Analysis 4 (second year)
Kholles (oral interrogations, second year)
- 2022-2023 **Teaching activity (64 hours)**, *Université Claude Bernard, Lyon*.
Analysis 2 (first year)
Mathematics 2 (first year of physics)
Kholles (oral interrogations, second year)

Skills

Languages

- French
- English C2 level (*Cambridge certification*)

CS

LaTeX

Python

OCaml