

Ricardo Canesin

PhD Student

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Education

- 2023–Present **Pursuing a PhD in Mathematics**, *Université Paris Cité (UPC)*, Paris, France.
Supervisor: Bernhard Keller.
- 2022–2023 **Master's degree in Mathematics (M2 de Mathématiques Fondamentales)**, *UPC*, Paris, France.
Master's thesis: "On the bounded derived category of a Dynkin quiver".
Supervisor: Baptiste Rognerud.
- 2018–2021 **Bachelor's degree in Mathematics**, *University of São Paulo (USP)*, São Paulo, Brazil.
Bachelor's thesis: "Modular representations of finite groups".
Supervisors: Lucia Satie Ikemoto Murakami and Vitor de Oliveira Ferreira.

Scholarships received

- 2022–2023 **PGSM Master Scholarship**, *Fondation Sciences Mathématiques de Paris (FSMP)*, France.
- 2018–2021 **PICME Scholarship**, *Brazilian National Council for Scientific and Technological Development (CNPq)*, Brazil.

Preprints

- 05/2025 **A categorification of combinatorial Auslander–Reiten quivers**, *arxiv:2505.06147*.
- In preparation **Categories of split filtrations and graded quiver varieties**.

Talks and conferences

Invited talks

- 06/2025 **A categorification of combinatorial Auslander–Reiten quivers**, *Demi-journée de l'équipe Groupes, Représentations et Géométrie*, UPC, France.
- 07/2024 **Categorifying twisted Auslander–Reiten quivers**, *Workshop on higher homological algebra and related topics*, Nanjing University, China.

Contributed talks

- 08/2025 **A categorification of combinatorial Auslander–Reiten quivers**, *The Legacy of Peter Gabriel*, Bielefeld University, Germany.
- 08/2024 **Categorifying twisted Auslander–Reiten quivers**, *International Conference on Representations of Algebras (ICRA 21)*, Shanghai Jiao Tong University, China.

Posters

- 09/2025 **A categorification of combinatorial Auslander–Reiten quivers**, *Advances in Representation Theory of Algebras (ARTA X)*, University of Cologne, Germany.

05/2025 **Combinatorial Auslander–Reiten quivers and their frieze patterns**, *Frieze patterns in algebra, combinatorics and geometry*, Centre International de Rencontres Mathématiques (CIRM), France.

Conference organization

05/2024 **CHARMS Summer School: Categorical and geometric methods in the representation theory of algebras**, *Université de Versailles Saint-Quentin-en-Yvelines*, France.

Member of the organizing committee.

Conferences and workshops attended

06/2025 **Nordfjordeid Summer School 2025: Cluster Geometry**, *Sophus Lie Conference Center*, Nordfjordeid, Norway.

03/2025 **Algebra Days in Caen 2025: Categorification and quantisation in cluster theory and beyond**, *Université de Caen-Normandie*, Caen, France.

08/2024 **Masterclass on Derived Category Methods in Ring Theory**, *Aarhus University*, Denmark.

07-08/2024 **Workshop at ICRA 21**, *Shanghai Jiao Tong University*, China.

05/2024 **Catégories amassées et symétrie miroir (Rencontre ANR Charms)**, *IRMA, Université de Strasbourg*, France.

04/2024 **Workshop: Hochschild (Co)Homology and Applications**, *Oberwolfach Research Institute for Mathematics (MFO)*, Germany.

11–12/2023 **Current trends in representation theory, cluster algebras and geometry**, *Centre International de Rencontres Mathématiques (CIRM)*, Marseille, France.

Awards

2023 **“Best student” award (Class of 2021)**, *Institute of Mathematics and Statistics of USP*.

2022 **Silver medal in the Brazilian Mathematical Olympiad (OBM)**, *Brazilian Mathematical Society (SBM) and Institute for Pure and Applied Mathematics (IMPA)*.

2021 **Gold medal in the International Mathematical Competition for University Students (IMC)**, *University College London (UCL)*.

2020 **Gold medal in the “Competencia Iberoamericana Interuniversitaria de Matematicas” (CIIM)**, *Universidad Antonio Nariño (UAN, Colombia)*.

Teaching assistantships

2025 **Interactions Mathematics-Physics (L1 Physique)**, *UPC*, Paris, France.

2024 **Calculus and Linear Algebra (L2 Informatique)**, *UPC*, Paris, France.

Professor: David Hernandez.

2024 **Calculus (L1 MIASHS)**, *UPC*, Paris, France.

Professor: Yves Capdeboscq.

Languages

Portuguese **Mother tongue**

English **Advanced**

French **Advanced**