

Juan Ramón GÓMEZ GARCÍA

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Education

- 2022–current **Paris-Cité University,**
Mathematics, PhD,
Research project: *Goldman-Turaev Formality and $Rep_q GL_t$* .
Advisors: Adrien Brochier and Emmanuel Wagner
- 2021–2022 **Sorbonne Paris Nord University, Paris-Cité University and Sorbonne University,**
Fundamental Mathematics (minor in Computer Science), Master 2,
GPA – 16.10 / 20, mention *Très bien*.
Master thesis: *Skein categories, quantum groups and associators* (grade: 18 / 20).
- 2020–2021 **Sorbonne Paris Nord University,**
Fundamental Mathematics (minor in Computer Science), Master 1,
GPA – 18.22 / 20, mention *Très bien* (ranked first among Math majors).
Master thesis: *Classification of closed oriented surfaces via Morse Theory* (grade: 19 / 20).
- 2013–2018 **Complutense University of Madrid,**
Mathematics, Bachelor's degree,
GPA – 7.58 / 10.
Bachelor thesis: *Sard's theorem, transversality and intersection* (grade: 9.7 / 10).
- 2013–2018 **Complutense University of Madrid,**
Physics, Bachelor's degree,
GPA – 7.38 / 10.
Bachelor thesis: *Spin effects for a particle in a potential well* (grade: 8 / 10).

Work experience

- 2025–current **Université Paris Cité, ATER (TEMPORARY LECTURER AND RESEARCHER).**
◦ Fourth-year PhD candidate.
◦ Teaching assistant.
- 2022–2025 **Institut de Mathématiques de Jussieu - Paris Rive Gauche, PhD CANDIDATE.**
◦ Quantum algebra and quantum topology.
◦ Teaching assistant (*moniteur*).
- 2019–2020 **European University of Madrid, LECTURER.**
◦ Teaching the subjects *Mathematical methods for engineering* and *Numerical computational calculus* in the degree in Civil Engineering.
◦ Coordinator of the subject *Numerical computational calculus*.
◦ Teaching *Physics* and *Mathematics applied to the social sciences* in the university entrance courses for people over 25.
- 2019–2020 **HI Iberia, ARTIFICIAL INTELLIGENCE ENGINEER.**
◦ Development of a model for the automatic control of an isolated electric grid using Reinforcement Learning. We worked with Red Eléctrica de España within the innovation program Grid2030.
◦ Development of a system for object detection in satellite images using Deep Learning for the Spanish Army.
- 2017–2020 **JC Engineering, Architecture, Technical Training, LECTURER.**
Exam training for students of Aerospace Engineering from Polytechnic University of Madrid.
◦ Teaching *Linear Algebra*, *Calculus*, *General Physics* and *Thermodynamics*.
◦ Coordinator of the Aerospace Engineering program.

Grants

- 2020–2022 **EUR Scholarship**, *Sorbonne Paris Nord University*.
Scholarship from the *École Universitaire de Recherche* for a Master's degree in Mathematics in Paris.

Awards and accomplishments

- 2021 **Galileo Institute recognition for the best Master 1 academic record of the year**.
2013 **Best candidate of the year to the Spanish national university entrance exam**.
Grade: 14 / 14.

Talks

- 2025 **Topology seminar**, *Paris Cité University*.
Talk entitled *Turaev coproduct and parabolic restriction*.
2025 **Doctoral Students Meeting of Thematic Network RT2171**, *Picardie Jules Verne University*.
Talk entitled *Skein categories, Turaev coproduct and parabolic restriction*.
2025 **Quantum Topology Days**, *University of Burgundy*.
Talk entitled *Turaev coproduct and Parabolic restriction*.
2024 **Reading seminar on Balmer Spectra**, *Paris-Cité University*.
Series of talks introducing the formalism of Infinity Categories.
2024 **Group, Representations and Geometry team day**, *Paris-Cité University*.
Short talk explaining my PhD project.
2024 **IMJ-PRG PhD Seminar**, *Sorbonne University*.
Talk on Skein Categories and Factorisation Homology.
2023 **Reading seminar on the Cohomology of Torelli-Groups**, *Paris-Cité University*.
Talk on Spectral Sequences.
2022 **Reading seminar on Categorification in TQFT**, *Paris-Cité University*.
Series of talks on Soergel bimodules and Categorification of Hecke algebras.
2022 **Reading seminar on Modular Categories**, *Paris-Cité University*.
Introductory talks on Topological Quantum Field Theories.
2022 **EUR seminar on Probability and Combinatorics**, *Université Sorbonne Paris Nord*.
Talk entitled *Cantor's diagonal argument and decidability: the halting problem*.

Languages

- Spanish Mother tongue
English Fluent – *Certificate in Advanced English (Cambridge)*. Overall score: 197 / 210
French Fluent

Other activities

- 2023-2025 **Elected member of the Laboratory Council**, *IMJ-PRG*.
2023-2024 **Organizer of the IMJ-PRG PhD Preprint Seminar**, *IMJ-PRG*.
Seminar for PhD students
2022-current **Volunteer at the Science Festival (*Fête de la science*)**, *IMJ-PRG*.
Organizer of math outreach activities for young audiences.
2020 **Introduction to university workshops**, *European University of Madrid*.
Organiser of the online workshop on mathematics and mathematics applied to social sciences.
2015 **Spring Mathematics Competition**, *Complutense University of Madrid*.
Supervision of exams for the Spring Mathematics Competition of the Community of Madrid.
2014 **The 10th AIMS Conference on Dynamical Systems, Differential Equations and Applications**, *ICMAT*.
Participation as a volunteer in the organisation of the event.