

# JUAN BRIEVA RAMÍREZ

Mathematics ~ Engineering Physics



IMJ-PRG - UPC

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CFIS - UPC

Paris, France

## EDUCATION

-  2025 - 2026
- M2 Master in Fundamental Mathematics**IMJ-PRG - Université Paris Cité  
Master organized within the Institut de Mathématiques de Jussieu-Paris Rive Gauche, jointly run by Sorbonne Université, Université Paris Cité, and Université Sorbonne Paris Nord, focusing on advanced topics in algebra, geometry and number theory.
-  2020 - 2025
- Double Bachelor's in Mathematics and Engineering Physics**CFIS - Universitat Politècnica de Catalunya  
GPA of **9.31/10** in Mathematics and **9.23/10** in Engineering Physics. Honours in 16 of the courses. CFIS is an excellence centre at the Polytechnic University of Catalonia that aims to select and mentor outstanding students for interdisciplinary studies in mathematics, physics and engineering.

## EXPERIENCE

-  09/2024 - 03/2025
- Undergraduate Research Intern**MATHEMATICAL INSTITUTE-UNIVERSITY OF OXFORD  
Research project tutored by Professor Andrew Dancer on symplectic geometry, focusing on the singular symplectic reduction of the cotangent bundle of Lie groups.
-  07/2024
- Research Project - Summer School**ICMAT  
Research project on Beltrami Fields tutored by Professor Daniel Peralta-Salas, and attended JAE mathematical summer school regarding various topics such as Morse Theory, Hyperbolic Geometry and Elliptic PDEs at ICMAT, Spain's leading mathematics research institute.
-  09/2023 - 06/2024
- Student mentor**CFIS - UPC  
Mentor to 9 students of the CFIS programme, providing academic and personal support, teaching classes and monitoring their progress during their first year.
-  07/2023 - 08/2023
- Research Project - Summer School**ICMAT  
Research project on elliptic curves tutored by UAM professor Daniel Macías Castillo based on Silverman's book *The Arithmetic of Elliptic Curves* and attended ICMAT's JAE mathematical summer school regarding various topics such as Quantum Game Theory, Infinite Groups, and Banach Lattices.
-  09/2022 - 12/2022
- Teaching Assistant**UPC  
Teaching assistant in the mathematics first-year Single Variable Calculus course, grading coursework and teaching problem-solving classes.
-  07/2022
- Research Project - Summer School**CRM  
Research project on flexible polyhedra and the Bellows Conjecture tutored by UB professor Martin Sombra and attended CRM's summer school.

## SCHOLARSHIPS, AWARDS AND COMPETITIONS

- FSMP**
- PGSM Master Scholarship 2025 - 2026**Fondation Sciences mathématiques de Paris
- CFIS**
- Full tuition & Accommodation scholarship**UPC  
Awarded a scholarship for the duration of my bachelor's studies due to academic merits.
- IMO**
- Honourable Mention 2019**International Mathematical Olympiad
- OME**
- Gold Medal 2019 & Silver Medal 2020**Spanish Mathematical Olympiad
- IMC**
- Bronze medal 2024 & 2023**International Mathematical Competition
- SWERC**
- Ranked 38/120 2023**ICPC Regional Contest  
Assisted UPC's 10-hour weekly preparation for the contest and placed in the top third of contestants.
- OFE**
- Silver medal 2020**Spanish Physics Olympiad
- Spring Math Contest**
- Honourable Mention 2021, Silver Medal 2022 & Honourable Mention 2023**UPC

## LANGUAGES

**Spanish.** Native  
**English.** Advanced level





**French.** Intermediate level  
**Catalan.** Intermediate level

## CODING

**C++.** Advanced level  
**Python.** Intermediate level

**LaTeX.** Intermediate level  
**MATLAB.** Basic level

## OTHER ACTIVITIES

-  09/2024
- Workshop: Fluid Dynamics, Geometry and Computer Science in interaction**CRM
-  07/2024
- Workshop on Hamiltonian Geometry and Quantization**Fields Institute
-  2016 - 2020
- Student representative in the school council during high school**
-  2017 - 2019
- Volunteer as a tutor to students with special needs during high school**



2010 - Present

**Music studies in saxophone and piano, and member of the local concert band BSA**



2012 - 2020

**Member of the local roller hockey team**