

JUAN BRIEVA RAMÍREZ

Mathematics ~ Engineering Physics

CFIS - UPC

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Barcelona, Spain

EDUCATION

2020 - 2025	Double Bachelor's in Mathematics and Engineering Physics GPA of 9.31/10 in Mathematics and 9.23/10 in Engineering Physics. Awarded Honours in 16 of the courses taken, including Differential Geometry and Algebraic Structures. CFIS is a unique excellence centre at the Polytechnic University of Catalonia, created to host some of the best maths, physics, and engineering students, selecting and mentoring excellent students for interdisciplinary studies.	CFIS - UPC
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EXPERIENCE

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

SCHOLARSHIPS, AWARDS AND COMPETITIONS

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 Assisted UPC's 10-hour weekly preparation for the contest and placed among top third of contestants.	ICPC Regional Contest
CFIS	Full tuition & Accommodation scholarship Awarded a full tuition and scholarship for the duration of my bachelor's studies due to academic merits.	UPC
OFE	Silver medal 2020	Spanish Physics Olympiad
Spring Math Contest	Honourable Mention 2021, Silver Medal 2022 & Honourable Mention 2023	UPC

LANGUAGES

Spanish. Native
Catalan. Intermediate level.

English. Advanced level
French. 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	Free private classes to students with special needs during high school	
2010 - Today	Music studies in saxophone and piano, and member of the local band BSA	
2012 - 2020	Part of local roller hockey team	