



Víctor Ballester Ribó

PhD Student in Aeronautics

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I am a PhD student in the Department of Aeronautics at Imperial College of London. I graduated in 2023 in Mathematics at Autonomous University of Barcelona and next year I moved to Paris to pursue a master degree at Dauphine-PSL University in Applied and Theoretical Mathematics. My main interests are in the field of Computational Mathematics and PDEs. Specifically, I am particularly interested in the application of Mathematics to Fluid Dynamics.

EDUCATION

PhD in Aeronautics

Imperial College London | London, UK

October 2024 - Present

- ▶ Working on flow transition over gaps using [Nektar++](#).
- ▶ Supervised by [Spencer Sherwin](#) and [Yongyun Hwang](#).

M2 in Applied and Theoretical Mathematics

Dauphine - PSL University | Paris, France

September 2023 - July 2024

- ▶ GPA: 16.54 / 20.00
- ▶ Minor in Physics, specifically in Computational Fluid Dynamics.
- ▶ Final master's project (supervised by [Alexandros Alexakis](#) and [Emmanuel Dormy](#)): 2D turbulence spreading.

Bachelor's Degree in Mathematics

Autonomous University of Barcelona | Cerdanyola, Spain

September 2019 - July 2023

- ▶ GPA: 9.42 / 10.00
- ▶ Ranked #1 in my graduating class.
- ▶ Honors: 186 / 240 ETCS
- ▶ Final bachelor's project (supervised by [J.M. Mondelo](#)): Numerical propagation of trajectories of Earth-orbiting spacecraft.

EXPERIENCE

Student Mentor

Imperial Maths School | London, UK

October 2025 - Present

- ▶ I mentored high school students on a numerical linear algebra research project comparing how the computational efficiency of different solvers scales with matrix size and sparsity for dense and sparse systems.

Graduate Teaching Assistant

Imperial College London | London, UK

October 2024 - Present

- ▶ Assisting in the teaching of the course *Mathematics 1*, *Mathematics 2* and *Applications of CFD* for undergraduate and master's students.

Imperial Formula Racing

Imperial College London | London, UK

October 2024 - May 2025

- ▶ Member of the Aerodynamics and Simulation team for the Imperial Formula Racing team, competing in the Formula Student competition.

NMK Graduate Summer Camp

Nesin Mathematics Village | Selçuk, Turkey

July 14 - July 28, 2024

- ▶ Attendance to courses on Dynamical Systems, PDEs and Probability.

Barcelona Introduction to Mathematical Research 2023

Barcelona Graduate School of Mathematics | Barcelona, Spain

July 03 - July 28, 2023

- ▶ Attendance to minicourses on Introduction to Research, from the fields of Algebraic Topology and Number Theory to Applied Mathematics and Discrete Mathematics.
- ▶ Worked on a research project (supervised by [Jezabel Curbelo](#) and [Álvaro Mesequer](#)): From chaotic dynamical systems to fluid turbulence.

RESEARCH PROJECTS

2D Turbulence Spreading

Paris, France

February 2024 - July 2024

- ▶ Study of the 2D turbulence propagation after locally injected turbulence is applied in the center of the domain.
- ▶ Supervised by [Alexandros Alexakis](#) and [Emmanuel Dormy](#).

Chaotic states of the 2D Kuramoto-Sivashinsky equation

Paris, France

November 2023 - January 2024

- ▶ Dynamical systems study of the instabilities and chaotic states of the 2D Kuramoto-Sivashinsky equation.
- ▶ Supervised by [Laurette Tuckerman](#).

Numerical propagation of trajectories of Earth-orbiting spacecraft

Barcelona, Spain

January 2023 - July 2023

- Reconstruction of orbits of satellites from real initial data when considering the Earth a non-uniform spherical distribution of mass and other minor perturbations.
- Supervised by J.M. Mondelo.

TALKS

Introduction to Nektar++ framework

UKACM & GACM Autumn School 2025 | Online

September 2025

Flow transition over surface gaps in 2D incompressible laminar boundary layers

UK Fluids Conference 2025 | Liverpool, UK

September 2025

Flow transition over surface gaps in 2D incompressible laminar boundary layers

16th ERCOFTAC SIG 33 Workshop | Cagliari, Italy

July 2025

AWARDS AND HONORS

PhD Scholarship

Imperial College London and The Boeing Company | London, UK

October 2024

- Full scholarship covering tuition fees and providing a stipend of around £20000 per year for the PhD in Aeronautics at Imperial College London.

Extraordinary Bachelor's Degree Award

Autonomous University of Barcelona | Cerdanyola, Spain

November 2023

- Awarded to the student with the best academic record in the Bachelor's Degree in Mathematics at Autonomous University of Barcelona for the graduating class 2019-2023.

PGSM Scholarship

Fondation Sciences Mathématiques de Paris | Paris, France

Abril 2023

- Scholarship that covered tuition fees and provided a monthly stipend of 1100€ for the M2 Applied and Theoretical Mathematics program at Dauphine-PSL University.

Second-best spanish individual in the Simon Marais Mathematics Competition

Simon Marais Mathematics Competition | Online

November 2022

- Second best qualified Spanish individual and top quartile on the west division of the 2022 Simon Marais Mathematics Competition.

Best spanish pair in the Simon Marais Mathematics Competition

Simon Marais Mathematics Competition | Online

November 2021

- Best qualified Spanish pair on the west division of the 2021 Simon Marais Mathematics Competition, jointly with Misael Malqui.


Silver medal at XXX Spanish Physics Olympiad


Royal Spanish Society of Physics | Salamanca, Spain


April 2019


- Awarded the silver medal at the national finals of the Spanish Physics Olympiad held in Salamanca.


LANGUAGES

Native

Native

C1

B2

B1

HOBBIES & INTERESTS

- Cycling

Physics

Traveling
- Hiking

Engineering

Racing

ADDITIONAL INFORMATION

- Driving License B