

Richard Coll Josifov

Barcelona, Spain

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Education

PhD in Applied Mathematics

Sept. 2024 - currently

POLYTECHNIC UNIVERSITY OF CATALONIA - POMPEU FABRA UNIVERSITY

Barcelona, Spain

- Supervised by Dr. Gábor Lugosi (UPF) and Dr. Juanjo Rué (UPC).
- Funded through the competitive “Formación de Profesorado Universitario” (FPU) grant.
- My PhD thesis revolves around discrete probability, combinatorics, and combinatorial statistics. I am currently researching root estimation in random growing trees, as well as block sizes in random planar maps decompositions.

M.Sc. Applied and Computational Mathematics

Aug. 2022 - June 2024

KTH ROYAL INSTITUTE OF TECHNOLOGY

Stockholm, Sweden

- Specialisation: Mathematics of Data Science. GPA: 4.9/5
- Some relevant courses include, all passed with maximum grade: Probability Theory, Graph Theory, Stochastic Differential Equations, Regression Analysis, Numerical Methods, Topological Data Analysis, Computational Statistics, Statistical Learning.
- Master thesis: “Network archaeology of random recursive dags with noise” under the supervision of Dr. Gábor Lugosi (UPF).

B.Sc. Electronic Engineering

Sept. 2018 - July 2022

POLYTECHNIC UNIVERSITY OF CATALONIA

Barcelona, Spain

- First of the 2022 promotion. Average grade of 9,3 out of 10 with honours (“Matrícula de honor”) in over half of the courses (150/243ECTS)
- Bachelor’s final thesis: “Deep learning based computer vision for aerial-view object detection and classification”, at the Advanced Control Systems research group, which led to a conference publication.

Publications

- Coll Josifov, R.; Devroye, L. and Lugosi, G., “A study of centrality measures in random recursive trees”, *arXiv*, 2026.
- Coll Josifov, R.; Masip Álvarez, A. and Lavèrnia Ferrer, D., “Deep learning techniques applied to traffic accidents prediction”, *XLIII Jornadas de Automática 2022*.

Talks, visits, workshops

- Month long visit, McGill University, working with Dr. Luc Devroye, March 2026.
- Contributed talk, RandNet Workshop on Random Discrete Structures, September 2025, TU Wien.
- Month long visit, McGill University, working with Dr. Luc Devroye, November 2024.
- Attendance at the workshops: Oxford Probability Workshop Random Discrete Structures (2025); SLMI Workshop Detection, Estimation and Reconstruction in Networks (2025); GAPCOMB Workshop (2025), RandNet Workshop on Random Discrete Structures (2025), Probability and combinatorics: Twentieth Annual Workshop (2026).

Honors, Grants & Scholarships

2025	Oxford Probability Workshop “3 Minute Thesis Competition” , Second prize.	Oxford, UK
2025-2028	“Formación de Profesorado Universitario” grant , PhD grant (114.760,80€).	Barcelona, Spain
2022	First of promotion award , finishing first out of 75 in the 2022 Electronic Engineering promotion (500€).	Terrassa, Spain
2021,2022	Initiation to Research Grant (INIREC) , 6 months MCIA INIREC grant (1.800€).	Terrassa, Spain
2021	Initiation to Research Grant (INIREC) , 6 months Santander Bank-UPC initiation to research grant (3.150€).	Terrassa, Spain
2018	Tavil Scholarship , to cover studies fees (10.000€).	Olot, Spain
2018	Distinction , University Access Exams, for a mark of 9.6/10.	Barcelona, Spain

Professional Experience

Research Assistant

March 2021 - March 2022

MCIA CENTER INNOVATION ELECTRONICS, POLYTECHNIC UNIVERSITY OF CATALONIA

Terrassa, Spain

- Worked as a research assistant to PhD student Ángel Fernández under the supervision of Dr. Miguel Delgado doing research in connected and digital industry.

Skills

- Languages: Catalan (Native), Spanish (Native), English (C2), Mandarin Chinese (A2).