

TOMAS ESPAÑA

Double Degree MSc Student in Applied Mathematics/Quantitative Finance

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EXPERIENCE

Scuola Normale Superiore of Pisa

Research Intern

Pisa, Italy

May 2025 – Present

- Topics: Reinforcement Learning for Optimal Execution
- Supervisors: Yadh Hafsi, Edoardo Vittori, Fabrizio Lillo

EconophysiX - CFM Chair of Econophysics & Complex Systems at Ecole Polytechnique

Research Intern

Paris, France

Jan. 2024 – July 2024

- Topics: High-dimensional Statistics, Random Matrix Theory, Portfolio Optimization
- Supervisors: Victor Le Coz, Matteo Smerlak, Jean-Philippe Bouchaud

CFM - Capital Fund Management

Quantitative Research Intern

Paris, France

July 2023 – Dec. 2023

- Topics: Market Latency (Queueing Theory & Optimization) and Market Microstructure for the Execution Strategies team
- Coded a latency simulator of the CFM order pipeline to improve execution speed/profitability

CentraleSupélec - Université Paris-Saclay

Math Teaching Assistant

Paris, France

Sept. 2022 – Feb. 2023

- Taught Measure Theory and Partial Differential Equations to last year BSc students

EDUCATION

M2MO - Université Paris Cité

MSc in Mathematics: Probability, Finance & Data Science

Paris, France

Sept. 2024 – Expected July 2025

- One of the top-ranking MSc in Probability and Finance (ex DEA Laure Elie). Double degree with CentraleSupélec.

CentraleSupélec - Université Paris-Saclay

BSc and MSc of Science and Engineering - French Engineering "Grande Ecole"

Paris, France

Sept. 2021 – Expected July 2025

- Applied Mathematics

PUBLICATIONS

Pre-prints:

- T. Espana, V. Le Coz, M. Smerlak. *Kendall Correlation Coefficients for Portfolio Optimization*. arXiv preprint, 2024
- P. Bousseyroux, T. Espana, M. Smerlak. *Another Marčenko-Pastur for Kendall's Tau*. arXiv preprint, 2025

CONFERENCES

- Poster Presentation. *Random Tensors and Related Topics*, Institut Henri Poincaré, Paris, October 2024.
- Poster Presentation. *Brunel-Bielefeld Workshop on Random Matrix Theory and Applications*, London, December 2024.
- Poster Presentation. *18th Financial Risks International Forum*, Institut Louis Bachelier, Paris, March 2025.