Lorenzo Facciaroni

Dipartimento di Scienze Statistiche
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EDUCATION

11.2024 - present **PhD in Statistical Sciences** at Sapienza University.

09.2023 - present **Bachelor of Mathematics** at Sapienza University.
Focus on Mathematics for applications

11.2022 - 10.2024 **Master of Financial and Insurance Sciences** at Sapienza University.
Focus on Quantitative Finance
Erasmus experience at Paris Dauphine University
Vote: 110 with honors / 110
Supervisor: Costantino Ricciuti
Master thesis: On some stochastic processes governed by non-local equations.

09.2019 - 07.2022 **Bachelor of Science in Statistics** at Sapienza University.
Vote: 110 with honors / 110
Supervisor: Alessandro De Gregorio
Bachelor Thesis: Stochastic integral on Hilbert spaces, Girsanov theorem and changes of measure.

WORK EXPERIENCE

09.2021 - present **Teaching assistant** at Sapienza University:
- *Responsible for the exercises of the Calculus Unit I course at the Department of ACSAI, associate professor Adriano Pisante.*
- *Responsible for the exercises of the Linear Algebra course at the Department of Statistics, associate professor Enrico Casadio Tarabusi.*
- *Responsible for the exercises of the Mathematical Analysis course at the Department of Statistics, associate professors Sergio Simonella and Vincenzo Nesi.*
- *Responsible for the exercises of the Mathematical Analysis course at the Department of Informatic Engineering, associate professor Roberto Conti.*
- *Responsible for the exercises of the Mathematical Analysis course at the Department of Engineering, associate professors Isabella Ianni and Fabio Furini.*

01.2019 - 01.2022 **Pizza maker** in a pizzeria.

PUBLICATIONS

- Buoncuore, G., Salvatore, M., Facciaroni, L. et al. (2025+). *The Italian Angelman Syndrome Registry (IReAS): a tool for standardized data collection and genotype-phenotype analysis.* Submitted.

- Facciaroni, L., Ricciuti, C., Scalas, E., Toaldo, B. (2025+). *Random Flights and Anomalous Diffusion: A Non-Markovian Take on Lorentz Processes.* Submitted.

- Facciaroni, L., Ricciuti, C., Scalas, E., Toaldo, B. (2025). *Para-Markov chains and related non-local equations.* Fractional Calculus and Applied Analysis, 1-23.

- Facciaroni, L., Gambini, A., & Mazza, L. (2023). *The difficulties in geometry: A quantitative analysis based on results of mathematics competitions in Italy.* European Journal of Science and Mathematics Education, 11(2), 259-270.

CERTIFICATIONS

- ARPM - Advanced Risk and Portfolio Management certification.

SKILLS AND QUALIFICATIONS

Programming Languages

Advanced skills	R, Latex
Intermediate skills	C, Matlab, Python, SAS
Other software	Gretl, Excel

Languages

Native tongue	Italian
Advanced	English

CONFERENCES AND SCHOOLS

- P@W Summer School - Recent Trends in Probability and Statistics, Warwick, UK, 7-11 July 2025.

- Fractional Calculus, Probability and Non-Local Operators, Caserta, Italy, 7-9 May 2025.

- Third Conference of Young Applied Mathematicians, 18-23 September 2023, Siena, Italy.

- Preparation and presentation of the project *Messaggi di fumo*, *XX Convegno Nazionale Tabagismo e Servizio Sanitario Nazionale*, Istituto Superiore di Sanità.

INTERESTS

My research primarily centers on the interplay between non-local operators and random evolutions, with a particular emphasis on non-Markovian dynamics and their applications in statistical physics. Specifically, I am investigating semi-Markov and para-Markov processes in both Euclidean and non-Euclidean spaces.

Other interests are Italian literature, poetry and cinema.