

# Francesco Rotondi

## Appointments

- 2024 - today **Tenured Lecturer.**  
*Department of Finance, Università Commerciale L. Bocconi, Milan (IT).*  
Lecturer of “Mathematical Methods for Economics, Finance and Actuarial Sciences” (Italian Scientific Sector SECS/06)  
**Assistant to the Director** of the MSc Finance  
**Coordinator** of the Specialized Master in Quantitative Finance and Risk Management (MaFinRisk)
- 2021 - 2023 **Lecturer.**  
*Department of Finance, Università Commerciale L. Bocconi, Milan (IT).*
- 12/2020 - **Post-doc.**  
11/2022 *Department of Mathematics, Università degli Studi di Padova, Padova (IT).*  
Topic of the research grant: Stochastic methods for financial markets and the role of information

## Research

- 10/2025 National scientific qualification for Associate Professorship for the Italian Scientific Sector SECS/06

### Publications.

- 2026 A hidden Markov model for statistical arbitrage in international crude oil futures market (with V. Fanelli, C. Fontana), *Journal of Banking & Finance*
- 2026 Arbitrage theory in discrete and continuous time (with A. Battauz, F. Ortu), *World Scientific Publishing*
- 2025 Linking futures and options pricing in the natural gas market, *Risks*
- 2025 Seasonality and spikes in the natural gas market, *Energy Economics*
- 2024 Efficient valuation of barrier options under equity and interest rate risks, *Decisions in Economics and Finance*
- 2024 Optimal liquidation policies of redeemable shares (with A. Battauz), *Computational Management Science*
- 2023 Valuation of general GMWB annuities in a low interest rate environment (with C. Fontana), *Insurance: Mathematics and Economics*
- 2022 On horizon-consistent mean-variance portfolio allocation (with S. Cerreia-Vioglio, F. Ortu, F. Severino), *Annals of Operations Research*
- 2022 American options and stochastic interest rates (with A. Battauz), *Computational Management Science*
- 2019 American options on high dividend securities: a numerical investigation, *Risks*

### Working Papers.

- Flexibility and uncertainty: the optimal management of a gas-fired turbine (with C. Bertolosi)
- Machine learning for pairs trading: a clustering-based approach (with F. Russo)

### Work in Progress.

- Effective binomial discretizations of bivariate diffusion processes

## Teaching

(last three years reported below; details of teaching activities carried out are on my personal webpage)

- 2025 **Course Director.**  
*Università Commerciale L. Bocconi, Milan (IT).*  
Empirical Finance (MSc in Finance), 4 parallel classes; 160 class hours overall.  
Computational Methods and Machine Learning for Finance (Specialized Mater in Quantitative Finance and Risk Mangement), 32 class hours.  
Advanced Topics in Empirical Finance (Specialized Mater in Quantitative Finance and Risk Mangement), 16 class hours.

2025 **Instructor.**  
*Università Commerciale L. Bocconi, Milan (IT).*  
Computational Methods in Finance (MSc in Finance), 24 class hours.

2023-2024 **Course Director.**  
*Università Commerciale L. Bocconi, Milan (IT).*  
Stochastic Calculus (Specialized Mater in Quantitative Finance and Risk Mangement), 24 class hours.  
Computational Methods and Machine Learning for Finance (Specialized Mater in Quantitative Finance and Risk Mangement), 32 class hours.  
Advanced Topics in Empirical Finance (Specialized Mater in Quantitative Finance and Risk Mangement), 16 class hours.

2023-2024 **Instructor.**  
*Università Commerciale L. Bocconi, Milan (IT).*  
Financial Econometrics and Empirical Finance I (MSc in Finance), 76 class hours.  
Quantitative Finance and Derivatives I (MSc in Finance), 24 class hours.  
Computational Methods in Finance (MSc in Finance), 12 class hours.

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## Service

2021-today Supervisor of 20 BSc thesis, 25 MSc thesis, 20 Specialized Master final projects.  
2021-today Reference for the Department of Finance regarding thesis support for students.  
2023-today Member of the Quality Assurance Committee for the MSc in Finance

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## Conferences

2026\* XIII Bachelier World Congress, *Università di Bologna, Bologna (IT)*  
2026 Workshop on Numerical Methods, *Università degli Studi di Milano, Milano (IT)*  
2025 AMASES 2025, *Università di Firenze, Firenze (IT)*  
2025 Euro 2025, *University of Leeds, Leeds (UK)*  
2024 Financial derivatives and hedging in energy markets, *Università di Foggia, Foggia (IT)*  
2024 Emerging risks in economics and finance workshop, *Università di Firenze, Firenze (IT)*  
2024 AMASES 2024, *Università degli Studi di Napoli Federico II, Ischia (IT)*  
2024 XXV Workshop on Quantitative Finance, *Università degli Studi di Bologna, Bologna (IT)*  
2024 Energy Finance Italy 9, *Università degli Studi di Bari, Bari (IT)*  
2023 AMASES 2023, *Università degli Studi di Milano-Bicocca, Milano (IT)*  
2023 MathRisk Conference on Numerical Methods in Finance, *Università degli Studi di Udine, Udine(IT)*  
2023 Quantitative Finance Workshop XXIV, *Università di Cassino e del Lazio Meridionale, Gaeta(IT)*  
2023 Energy Finance Italy 8, *Politecnico di Milano, Milano(IT)*  
2022 AMASES 2022, *Università degli Studi di Palermo, Palermo (IT)*  
2022 ECSO-CMS 2022, *Università Ca' Foscari di Venezia, Venice (IT)*  
2022 MAF 2022, *Università degli Studi di Salerno, Salerno (IT)*  
2021 Statistics 2021, online event, *Concordia University, Montréal (CA)*,  
2021 IME, online event, hosted by multiple Institutions  
2021 EFMA 2021 Annual Meeting, online event, *University of Leeds, Leeds (UK)*  
2021 AMAMEF, online event, *Università di Padova, Padova (IT)*  
2021 AFFI 2021 Annual Meeting, online event, *University of Nantes, Nantes (FR)*  
2019 EFMA 2019 Annual Meeting, *University of Azores, Ponta Delgada (PT)*  
2019 AMASES 2019, *Università di Perugia, Perugia (IT)*, winner of the Award for the best paper presented by a young researcher  
2018 ARPM, Advanced Risk and Portfolio Management Bootcamp, *New York University, New York City (USA)*  
2018 11th European Summer School in Financial Mathematics, *Ecole Polytechnique, Paris (FR)*  
2017 XVIII Workshop on Quantitative Finance, *Università Bicocca, Milan (IT)*  
2017 10th European Summer School in Financial Mathematics, *Technische Universität Dresden, Dresden (DE)*

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## Education

- 2015 - 2020 **PhD in Economics and Finance.**  
*Università Commerciale L. Bocconi, Milan (IT).*  
Fields: mathematical finance, asset pricing.  
PhD advisor: Prof. Anna Battauz, ✉ [anna.battauz@unibocconi.it](mailto:anna.battauz@unibocconi.it)  
Dissertation: Essays on American Options
- 2014 - 2015 **Master of Science in Business Mathematics (Wirtschaftsmathematik).**  
*Ludwig Maximilians Universität, Munich (DE).* Final grade 1.0 (A).  
Dissertation: Systemic risk Measures via acceptance sets.
- 2013 - 2014 **Master Degree Program in Quantitative Finance.**  
*Università di Bologna, Bologna (IT).* Final grade: 110/110 cum laude.
- 2010 - 2013 **Bachelor Degree in Mathematics.**  
*Università degli Studi di Padova, Padova (IT).* Final grade: 97/110.  
Dissertation: Application of quantization to optimal control problems in finance.
- 2005 - 2010 **A levels, Scientific High School.**  
*Liceo Scientifico G. Galilei, San Donà di Piave (IT).* Final grade: 98/100.