Cristina **Bertolosi**

Post-Doctoral Researcher

CONTACT

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UPO Profile

cristina-bertolosi

ResearchGate · SSRN

PROFILE

Post-Doctoral Researcher at the University of Eastern Piedmont and PhD in Finance from Bayes Business School. My research focuses on dynamic decision-making under uncertainty through real options, stochastic processes, stochastic optimal control, and quantitative methods, with particular attention to operational flexibility and investment and financing decisions. Applications range from entrepreneurial finance to energy markets. Alongside research, I am involved in university teaching and outreach activities. Beyond academia, I pursue cycling, as a race judge and amateur cyclist, and music, as an amateur flautist.

RESEARCH INTERESTS

Real Options · Quantitative Finance · Decision-Making under Uncertainty · Stochastic Optimal Control · Entrepreneurial Finance · Energy Markets · Reinforcement Learning

LANGUAGES

Italian · native

English · fluent

French · limited

DIGITAL SKILLS

Windows · MATLAB · MS Office · LaTeX · Moodle

VBA · R · Python · ECDL Standard

Current Position

Post-Doctoral Researcher May 2025–present

DiSEI, Università del Piemonte Orientale · Novara

Project *SMART-REAL: Strategic Mathematical Analysis for Real Options in Decision-Making Under Uncertainty*. Scientific supervisor: Prof. Gianluca Fusai.

Education

PhD in Finance 2024

Bayes Business School, City St. George's, University of London · London, UK

Thesis: *Essays on firm's operational flexibility*. Supervisors: Prof. Gianluca Fusai and Prof. Ioannis Kyriakou. Examiners: Prof. Zhenyu Cui and Prof. Amir Alizadeh.

MSc in Finance, Insurance and Risk Management (italian Second-Level Master's Degree) 2018

Collegio Carlo Alberto and University of Turin · Turin

Specialisation in Quantitative Finance.

MSc in Management and Finance 2017

Università del Piemonte Orientale · Novara

Tesi: *Uses and Pricing of Real Options in Dry-Bulk Shipping*. 110/110 cum laude; "Migliori laureati" award.

BSc in Business Administration 2015

Università del Piemonte Orientale · Novara

Thesis: *Portfolio Selection: A Comparison between the Mean–Variance Approach and the Minimax Criterion*. 104/110.

Publications and Research Output

Bertolosi, C., Fusai, G., Kyriakou, I. (2025). *Alternative Price Dynamics and Valuation of Flexible Strategies*. **International Journal of Finance & Economics**, 1–18.

Zocchi, P., **Bertolosi, C.**, Gambaro, A., Benito Torres, L., Lopez Penabad, C. (2026). *Blueprint for reform: lessons from the Italian and Galician financial education pathways*. SSRN.

Bertolosi, C., Rotondi, F. (2026). *Operational Flexibility in Gas-Fired Power Plants Under Climate Policy Uncertainty*. SSRN.

Bertolosi, C., Fusai, G., Kyriakou, I. (2025). *Operational Flexibility and Firm Risk: A Real Options Perspective*. SSRN.

Bertolosi, C. (2024). *Essays on Firm's Operational Flexibility*. PhD thesis, Bayes Business School, City St George's, University of London.

Bertolosi, C., Rotondi, F. (2023). *Flexibility and Uncertainty: The Optimal Management of a Gas-Fired Turbine*. Working paper, SSRN.

Visiting

Make Mothers Matter NGO Sep. 2024

Brussels, Belgium

MSCA Staff Exchanges, project *Business Angels and Crowdinvestors for Startups' Human Capital*. Advisors: Prof. Vincenzo Capizzi and Ms. Johanna Salge.

Cass Business School, City, University of London Mar.–Jun. 2017

London, UK

Research activity to develop the MSc thesis. Advisors: Prof. G. Fusai e Dr. I. Kyriakou.

Presentations and conference talks

2026 · *Learning When to Invest: Real Options and Reinforcement Learning in Start-Up Financing*. Mathematics and Statistics Seminars, DiSEI – UPO, Novara (invited).

2026 · *Operational flexibility in gas-fired power plants under climate policy uncertainty*. 50th AMASES Conference, Rome.

2026 · *General vs. Domain-Specific Financial Literacy: analysis of the impact on young people's attitudes toward cryptocurrencies and BNPL*. XXVII Quantitative Finance Workshop.

2023 · *Flexibility and Uncertainty: The Optimal Management of a Gas-Fired Turbine*. XLVII AMASES Conference, Milan.

2023 · *Valuing flexibility under multiple uncertainties: power off-and-on the power plant*. Finance PhD Research Days, Bayes Business School.

2023 · *Should we care about mean-reversion in energy commodity prices? Implications for operationally flexible firms*. VIII Energy Finance Conference, Milan.

2022 · Mean-reversion and operational flexibility: XLVI AMASES Conference; Finance PhD Research Days; XXIII Quantitative Finance Workshop.

2021 · *Mean-reversion and production flexibility: effects on firms' operational strategy*. Afternoon Math Seminars, DiSEI – UPO (invited).

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AFFILIATIONS

Associate Fellow of the Higher Education Academy (AFHEA), UK

Member, AMASES

PEER REVIEW

Journal of Computational and Applied Mathematics

Annals of Operations Research

Decisions in Economics and Finance

BEYOND ACADEMIA

Regional Cycling Race Commissaire, Italian Cycling Federation (FCI)

Amateur cyclist · Master W1 / Women Masters

Amateur flautist · Wind band "C.&D. Martinetti" · ANBIMA member

Teaching

AI and Business Strategy · Module 1 2023/24–presente

MSc in Artificial Intelligence and Digital Innovation · UPO

40 hours, 5 ECTS · course lead / adjunct lecturer.

AI, Fintech and Entrepreneurial Finance · Module 1 2023/24–presente

MSc in Artificial Intelligence and Digital Innovation · UPO

40 hours, 5 ECTS · course lead / adjunct lecturer.

Quantitative Methods 2 2022/23; presente

Single-Cycle Master's Degree in Law · UPO

22.5 hours, 3 ECTS (2022/23); 7.5 hours, 1 ECTS (present) · adjunct lecturer.

Quantitative Methods 1 and 2 2023/24–2025/26

Single-Cycle Master's Degree in Law · UPO

Course lead / adjunct lecturer.

Strategies and Models for Financial Risk Management 2023/24–presente

MSc in Administration, Professions and People · UPO

15 hours, 2 ECTS · adjunct lecturer.

Mathematics OFA and Mathematical Methods 1 Lab 2025/26–presente

BSc in Business Administration · UPO

Supplementary teaching and tutorials.

Bayes Business School: Introduction to Mathematics (2020/21; 2022/23–2025/26), Mathematics for Finance (2020/21), Statistics for Finance (2019/20).

Tutoring/support: Mathematical Methods 1, UPO (2024/25–presente); Mathematics for Business and Finance, SAA (2021/22); Mathematical Methods 1, UPO (2015/16–2016/17).

Outreach activities

UPO school–university outreach activities (2025/26–present): probability and random walks; simple and compound interest; financial education; cryptocurrencies; Buy Now, Pay Later; financial influencers.

Further training

2024 · Introduction to Python for Data Science. Federica Web Learning.
2020 · Learning, Teaching and Assessment in Higher Education. City, University of London.
2017 · Workplace Health and Safety course. Università del Piemonte Orientale.
2016 · Advanced Risk and Portfolio Management Bootcamp. New York University.
2016 · Bloomberg Essentials Training Program. Stevens Institute of Technology.