Alessandro Milazzo

Curriculum Vitae

Employment

Apr 2023–present **Assistant Professor (RTD-A)**, *School of Management & Economics (Dept. ESOMAS), University of Turin*.

Oct 2021–Apr 2023 **Postdoctoral Researcher**, *Department of Mathematics, Uppsala University*.

May 2021–Oct 2021 **Research Fellow**, *London Mathematical Society (LMS)*.
LMS Early Career Fellowship.

2015–2016 **Researcher**, Advanced Risk and Portfolio Management (ARPM).
Developing theory, exercises and new frontier research for the ARPM Bootcamp Project.

Education

2017–2021 **PhD in Mathematics**, *Imperial College London*, UK.

2016–2017 **MRes in Stochastic Analysis and Mathematical Finance (with Distinction)**, *Imperial College London*, UK.

2013–2015 **MSc in Applied Mathematics (with Distinction)**, *Collegio Carlo Alberto*, Italy.

2013–2015 **MSc in Mathematics (110/110 cum Laude and Honors)**, *University of Turin*, Italy.

2010–2013 **BSc in Mathematics (110/110 cum Laude)**, *University of Parma*, Italy.

Research interests

Optimal stopping, stochastic optimal control, stochastic games, mathematical finance.

Publications in international referred journals

2023 Ekström, E., Milazzo, A. and Olofsson, M. The de Finetti problem with uncertain competition. To appear in *SIAM J. Control Optim.* ArXiv: https://arxiv.org/abs/2204.07016

2023 De Angelis, T. and Milazzo, A. Dynamic programming principle for classical and singular stochastic control with discretionary stopping. *Appl. Math. Optim.*, 88 (1), 7. DOI: https://doi.org/10.1007/s00245-023-09975-3

2020 De Angelis, T. and Milazzo, A. Optimal stopping for the exponential of a Brownian bridge. *J. Appl. Probab.*, 57(1), 361-384. DOI: https://doi.org/10.1017/jpr.2019.98

2018 Milazzo, A. and Vigna, E. The Italian Pension Gap: A Stochastic Optimal Control Approach. *Risks*, 6(2), 48-68. DOI: https://doi.org/10.3390/risks6020048

Papers under review

2023 Ekström, E. and Milazzo A. A detection problem with a monotone observation rate. Link to preprint: http://www2.math.uu.se/ ekstrom/monotone%20detection.pdf

2023 Milazzo A. On the monotonicity of the stopping boundary for time-inhomogeneous optimal stopping problems. ArXiv: https://arxiv.org/abs/2301.05458

2022 Milazzo, A. and Siorpaes, P. An abstract decomposition of measures and its many applications. ArXiv: https://arxiv.org/abs/2204.07487

PhD Thesis

2021 Milazzo, A. Various topics in stochastic control and measure theory: singular stochastic control, optimal stopping and decompositions of measures. DOI: https://doi.org/10.25560/92212

Referee activity

I am referee for the journals: *Journal of Applied Probability*, *Advances in Applied Probability*, *Decisions in Economics and Finance*, *International Journal of Theoretical and Applied Finance*, *Mathematics and Financial Economics*.

Invited talks and workshops

- Jun 2023 *Workshop on Stochastic Games with Asymmetric Information*, Warsaw, Poland.
- Jul 2022 *IFIP TC7 System Modeling and Optimization*, Warsaw, Poland.
- Jun 2022 *Third Italian Meeting on Probability and Mathematical Statistics*, Bologna, Italy.
- Mar 2022 *Workshop in Mathematical Modelling and Analysis*, Department of Mathematics, Umeå University, Sweden.
- Dec 2021 *Torino seminar series in Stochastics and Mathematical Statistics*, Department of Mathematics, University of Torino, Italy.

Contributed talks

- 2023 *11th General AMaMeF conference*, Bielefeld, Germany.
- 2022 *Workshop on Stochastic Games and Martingale Optimal Transport*, University of Milan, Italy.
- 2021 *10th General AMaMeF conference*, held virtually.
- 2021 *SIAM Conference on Financial Mathematics and Engineering*, held virtually.
- 2020 *Mathematical Finance PhD Day 2020*, Imperial College London, UK.
- 2020 *Winter School on Theory and Practice of Optimal Stopping and Free Boundary Problems*, University of Leeds, UK.
- 2019 *Second Italian Meeting on Probability and Mathematical Statistics*, Vietri sul Mare, Italy.
- 2018 *10th Conference in Actuarial Science and Finance*, Samos, Greece.

Teaching experience

- 2022-2023 Lecturer for "Special course in Mathematics II: an introduction to Microeconomic Theory, Decision Theory and Game Theory", BSc in Mathematics, Uppsala university.
- 2018–2020 Teaching assistant for "Stochastic Calculus for Finance", MSc in Risk Management and Financial Engineering, Imperial College Business School: tutorials and marking (approximately 160 students).
- 2018–2019 Teaching assistant for "Financial Engineering", MSc in Risk Management and Financial Engineering, Imperial College Business School: tutorials, including Python coding, and marking (approximately 160 students).
- 2017–2018 Teaching assistant for "Stochastic Processes", MSc in Mathematical Finance, Imperial College: tutorials and marking (approximately 100 students).
- 2017–2018 Teaching assistant for "Games, Risks and Decisions", BSc in Mathematics, Imperial College: tutorials and marking (approximately 100 students).
- 2017–2018 Teaching assistant for "Probability and Statistics II", BSc in Mathematics, Imperial College: tutorials and marking (approximately 100 students).

Grants and Awards

- 2021 London Mathematical Society Early Career Fellowship (GBP 9,000).
- 2018 Imperial College Faculty of Natural Sciences Prize for Excellence in the Support of Teaching and Learning.
- 2013–2015 Collegio Carlo Alberto Allievi Honors Program.