

# ANDREA MAZZON

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Department of Economics, University of Verona

Academic sector: *Mathematical methods of economics, finance and actuarial sciences (STAT-04/A)*

## ACADEMIC POSITIONS

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<b>Assistant Professor (tenure-track, RTDB)</b> University of Verona Department of Economics	2023 - Ongoing
<b>Akademischer Rat auf Zeit (Lecturer / Academic Councillor)</b> Ludwig Maximilians Universität München (LMU) Department of Mathematics	2020 - 2023
<b>Research Fellow (Postdoc)</b> Ludwig Maximilians Universität München (LMU) Department of Mathematics	2019 - 2020
<b>Doctoral Research Fellow</b> Scuola Internazionale Superiore di Studi Avanzati (SISSA), Trieste, Italy, in collaboration with Gran Sasso Science Institute (GSSI), l'Aquila, Italy Title of the PhD thesis: <i>Asset price bubbles in Financial networks</i> Thesis advisors: Prof. Dr. Francesca Biagini and Prof. Dr. Thilo Meyer-Brandis, LMU	2014 - 2018
<b>Scholarship</b> University of Bologna, Department of Mathematics Title of the project: <i>Asymptotic expansions of the forward implied volatility</i> Advisor: Prof. Dr. Andrea Pascucci, University of Bologna	2014

## EDUCATION

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<b>Post Graduate Course in Quantitative Finance</b> University of Bologna 30/30 with honors	2013 - 2014
<b>Laurea Magistrale (Master's degree, MSc), Mathematics</b> University of Bologna, Department of Mathematics 110/110 with honors Master Thesis: <i>The Square Root Process</i> , supervised by Prof. Dr. Andrea Pascucci.	2009 - 2012
<b>Laurea Triennale (Bachelor's Degree, BSc) in Mathematics</b> University of Bologna, Department of Mathematics 104/110 Bachelor Thesis: <i>Attacks to the RSA system</i> , supervised by Prof. Dr. Davide Aliffi.	2005 - 2008

## PUBLICATIONS

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### Published papers

- Biagini, F., Mazzon, A., Oberpriller, K., Multi-dimensional fractional Brownian motion in the G-setting. *Journal of Mathematical Analysis and Applications*, 548(1), 1-40, 2025.
- Biagini, F., Gonon, L., Mazzon, A., Meyer-Brandis, T., Detecting asset price bubbles using deep learning. *Mathematical Finance*, 35(1), 74-110, 2025.
- Biagini, F., Mazzon, A., Meyer-Brandis, T., Oberpriller, K., Liquidity based modeling of asset price bubbles via random matching. *SIAM Journal on Financial Mathematics*, 14(4), 1304-1342, 2023.
- Akhtari, B., Biagini, F., Mazzon, A., Oberpriller, K., Generalized Feynman-Kac Formula under volatility uncertainty, *Stochastic Processes and Their Applications*, 166, 82-110, 2023.
- Biagini, F., Mazzon, A., Perkkiö, A.-P., Optional projection under equivalent local martingale measures, *Finance & Stochastics*, 27(2), 435-465, 2023.
- Biagini, F., Mazzon, A., Oberpriller, K., Reduced-form framework for multiple default times under model uncertainty. *Stochastic Processes and Their Applications*, 156, 1-43, 2022.
- Biagini, F., Huber, T., Jaspersen, J. G., and Mazzon, A., Estimating Extreme Cancellation Rates in Life Insurance, *Journal of Risk and Insurance*, 88(4): 971-1000, 2021.
- Biagini, F., Mazzon, A., Meyer-Brandis, T., Financial asset bubbles in banking networks, *SIAM Journal on Financial Mathematics*, 10(2): 430-465, 2019.
- Biagini, F., Mazzon, A., Meyer-Brandis, T., Liquidity induced asset bubbles via flows of ELMs, *SIAM Journal on Financial Mathematics*, 9(2), 800-834, 2018.
- Mazzon, A., Pascucci, A., The forward smile in local-stochastic volatility models, *Journal of Computational Finance*, 20(3): 1-29, 2015.

### Preprints

- Mazzon, A., and Tankov, P., Optimal stopping and divestment timing under scenario ambiguity and learning, arXiv:2408.09349, 2025.

## TALKS

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### Invited talks

- ICIAM Congress, Valencia, June 2019: *Liquidity induced asset bubbles via flows of ELMs*
- International Conference on Computational Finance, Wuppertal, June 2022: *Bubbles detection from option prices via machine learning techniques*
- Amases Conference, Palermo, September 2022: *Generalized Feynman-Kac formula under volatility uncertainty*
- Seminar at the University of California Santa Barbara, November 2022: *Detecting asset price bubbles using deep learning*
- LPSM Seminar on Mathematical finance and numerical probability, Paris, January 2023: *Detecting asset price bubbles using deep learning*
- MathFinance Conference, Frankfurt, March 2023: *Detecting asset price bubbles using deep learning*
- Paris Bachelier Seminar, March 2023: *Reduced-form framework for multiple ordered default times under model uncertainty*

- Florence-Paris workshop on Statistics of Random Processes and its Applications to Financial Econometrics, Florence, June 2023: *Detecting asset price bubbles using deep learning*
- Seminar at Dipartimento di Statistica e Metodi Quantitativi, Milano-Bicocca, July 2023: *Detecting asset price bubbles using deep learning*
- Amases Conference, Milan, September 2023: *Optional projection under equivalent local martingale measures*
- Workshop on Emerging Risks in Economics and Finance, Florence, September 2024: *Optimal stopping and divestment timing under scenario ambiguity and learning*
- Seminar at the Department of Mathematics of LMU, Munich, November 2024: *Optimal stopping and divestment timing under scenario ambiguity and learning*
- Amases Conference, Florence, September 2025: *Optimal stopping and divestment timing under scenario ambiguity and learning*
- Numerical Methods for Finance and Insurance Workshop, Milan, February 2026: *Optimal stopping and divestment timing under scenario ambiguity and learning*

### Contributed talks

- XX Workshop on Quantitative Finance, Zürich, January 2019: *Liquidity induced asset bubbles via flows of ELMMs*
- 12th International Workshop on Stochastic Models and Control, Cottbus, March 2019: *Financial asset bubbles in banking networks*
- CEQURA Conference, Munich, September 2019: *Financial asset bubbles in banking networks*
- AMaMeF Conference, Online, June 2021: *Optional projection under equivalent local martingale measures*
- GrEnFin Project Final Conference, Bologna, October 2022: *Optimal portfolio choice under climate risk and model uncertainty*
- XXIV Workshop on Quantitative Finance, Gaeta, April 2023: *Detecting asset price bubbles using deep learning*
- Probability Rome Conference, Rome, June 2024: *Reduced-form framework for multiple ordered default times under model uncertainty*
- 12th Bachelier World Congress, Rio de Janeiro, July 2024: *Optimal stopping and divestment timing under scenario ambiguity and learning*
- XXVI Workshop on Quantitative Finance, Palermo, April 2024: *Optimal stopping and divestment timing under scenario ambiguity and learning*
- Quantitative Methods in Finance, Sydney, December 2025: *Optimal stopping and divestment timing under scenario ambiguity and learning*

## TEACHING

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### University of Munich:

- 2019–2023: Exercises on *Numerical Methods for Financial Mathematics*
- 2018–2023: Exercises on *Computational Finance and its Object Oriented Implementation*
- 2017: Exercises on *Mathematik im Querschnitt*

- 2019–2023: *Introduction to Object-Oriented Programming in Java*
- 2021–2023: *Computational Finance and its implementation in Python with applications to option pricing*
- 2020: *Risk measures and Portfolio optimization*
- 2018: *Optimal stochastic control with applications in finance*
- 2021: *Risk Assessment and Climate Change*, First Munich Climate School
- 2022: *Interest Rates and Risk in the context of Climate Models*, Second Munich Climate School
- 2023: *Risk Measures with applications to green finance*, Third Munich Climate School

#### **University of Verona:**

- 2023–2025: *Metodi computazionali per la finanza*
- 2023–2025: *Programmazione in Java per la Finanza*
- 2024–2025: *Modelli di Asset Pricing*
- 2026: *Controllo ottimo e machine learning in finanza*
- 2023–2025: *Mathematics*, Dottorato in Economia e Finanza

#### **GrEnFIn Summer School and Training, Bertinoro (Italy)**

- 2020: *Climate risk and Model uncertainty*
- 2021: *Climate risk management in finance: Risk measures under model uncertainty*
- 2022: *Time series analysis with application to Green energy markets*
- 2023: *Risk Measures with applications to green finance*
- 2024: *Risk management under Model uncertainty with applications to Climate risk*
- 2025: *Risk management under Model uncertainty with applications to Climate risk*

#### **SUPERVISIONS**

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##### **University of Munich:**

Bachelor Theses:

- Michael Gerk, *Loss based risk measures*, 2019
- Kornel Wendt, *Liquidity risk theory and coherent measures of risk*, 2019
- Beatrix Schmitt, *Risk Preferences and their Robust Representation*, 2019
- Simon von Lippe, *On the Andersen-Broadie algorithm for pricing American options*, 2020
- Shanfeng Huang, *Robustness in the optimization of Risk measures*, 2021
- Hoang Anh Nguyen, *Risk Measures and Capital Requirements for Processes*, 2022

Master Theses:

- Resul Deniz, *Liquidity induced asset bubbles in Financial networks*, 2019
- Clement Jerro, *Robustness in the optimization of Risk measures*, 2020

- William Wang, *Machine learning with Kernels for Portfolio valuation and Risk management*, 2020
- Nono Line Henri, *Estimating Extreme Cancellation Rates in Life Insurance*, 2020
- Guglielmo del Sarto, *A review of interest rate modeling and discounting in the context of climate models*, 2021
- Alberto Zanon, *Dynamic refinement of the Time Homogeneous Term-Structure Modelling*, 2021
- Michael Gerik, *Climate Risk Under Model Uncertainty*, 2022
- Ralitsa Marinova, *Liquidity induced asset bubbles via flows of Equivalent Local Martingale Measures*, 2022
- Niya Stoyanova, *The Nature of ESG Risk Factors and their Incorporation in contemporary Market Risk Models*, 2022
- Andrea del Giudice, *Neural Networks for Option Pricing and Local Volatility Calibration*, 2023
- Riccardo Luiso, *Rolling the DICE: Java implementation of the DICE model with stochastic interest rates and negative emission technologies*, 2023

### University of Verona:

#### Master Theses:

- Matteo Tosoratti, *Cryptocurrencies and their correlation with financial markets*, 2024
- Nico Trulla, *Numerical methods for pricing barrier options*, 2024
- Daniel Caputo, *Pricing European options on Bitcoin: a bivariate model with neural network methods*, 2024
- Simone Benolli, *Deep hedging: integration of American options as hedging instruments*, 2025
- Alessia Ongaro, *Quantitative and machine learning approaches to dynamic portfolio allocation*, 2025
- Nikola Umicevic, *Energy price dynamics and risk management: hedging strategies in electricity markets*, 2025
- Enrico Biscaro, *Neural network-based calibration of the local volatility surface*, 2025
- Salma Najih, *Alternative data and language models in finance*, 2025
- Lino Lanfredi, *Interest rate risk in the banking book: hedging techniques for Delta EVE and Delta NII minimization*, 2025
- Vittorio Cristini, *Option pricing with hybrid volatility models: development and calibration of the Heston-LSV model in Java*, 2025
- Giulia Tognato, *A comparison between Monte Carlo and quasi-Monte Carlo methods for option pricing*, 2026
- Saad Chahid, *Detecting asset price bubbles: a deep learning approach*, 2026

### CO-ORGANIZATION OF EVENTS

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- 12th General AMaMeF Conference, Verona
- First Munich Climate School
- LMU Spring Workshop in Stochastics and Finance

- LMU Versicherungsmathematisches Kolloquium (Actuarial Colloquium)

## ACADEMIC SERVICE

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- 2019–2022: Project manager (University of Munich representative) and member of the Quality Board, *GrEnFin (Greening Energy Market and Finance) Project*
- 2021–2023: Founding and organizing team member, *LMU Klimaforum*
- **Referee for:** Applied Mathematics and Optimization; Bernoulli Journal; Journal of Computational and Applied Mathematics; Mathematical Finance; Risk Journals; Springer Mathematics Books; Stochastic Processes and their Applications
- **Editorial activity:** Guest editor for the special issue “Financial modeling with frictions” in *Frontiers in Applied Mathematics and Statistics*

## LANGUAGES

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*Italian:* Mother tongue; *English:* Fluent; *German:* Good.

## PROGRAMMING SKILLS

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Java (contributor to finmath library, <https://github.com/finmath>), Python, MATLAB, Mathematica, R, C++