ANDREA MAZZON

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Dipartimento di Scienze Economiche, Università di Verona

Settore scientifico-disciplinare: *Metodi matematici dell'economia, della finanza e delle scienze attuariali (STAT-04/A)*

POSIZIONI ACCADEMICHE

Ricercatore a Tempo Determinato di tipo B (RTDB) 2023 - in corso
Università di Verona
Dipartimento di Scienze Economiche

Akademischer Rat auf Zeit (equivalente a lecturer/assistant professor) 2020 - 2023
Ludwig Maximilians Universität München (LMU)
Department of Mathematics

Assegnista di ricerca (Postdoc) 2019 - 2020
Ludwig Maximilians Universität München (LMU)
Department of Mathematics

Dottorato 2014 - 2018
Scuola Internazionale Superiore di Studi Avanzati (SISSA), Trieste, in collaborazione con Gran Sasso Science Institute (GSSI), L'Aquila
Titolo della tesi di dottorato (presso LMU): *Asset price bubbles in Financial networks*
Supervisori: Prof. Dr. Francesca Biagini e Prof. Dr. Thilo Meyer-Brandis

Borsa di studio 2014
Università di Bologna, Dipartimento di Matematica
Titolo del progetto: *Asymptotic expansions of the forward implied volatility*
Supervisore: Prof. Dr. Andrea Pascucci

FORMAZIONE

Corso post-laurea in Finanza Quantitativa 2013 - 2014
Università di Bologna
30/30 con lode

Laurea Magistrale in Matematica 2009 - 2012
Università di Bologna
110/110 e lode
Tesi: *The Square Root Process*

Laurea Triennale in Matematica 2005 - 2008
Università di Bologna
104/110
Tesi: *Attacchi al sistema RSA*

PUBBLICAZIONI

Articoli pubblicati

- 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 ELMMs. *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.

Preprint

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

PRESENTAZIONI

Invited talks

- ICIAM Congress, Valencia, June 2019: *Liquidity induced asset bubbles via flows of ELMMs*
- 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, Bicocca, Milan, 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, 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*

ATTIVITÀ DIDATTICA

Ludwig-Maximilians-Universität München:

- 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

Università di 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 (FC)

- 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*

ATTIVITÀ DI SUPERVISIONE

Ludwig-Maximilians-Universität München:

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 Gerk, *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

Università di Verona:

Tesi di laurea magistrale:

- Matteo Tosoratti, *Le criptovalute e la loro correlazione al mercato finanziario*, 2024
- Nico Trulla, *Metodi numerici per la valutazione delle opzioni a barriera*, 2024
- Daniel Caputo, *Valutazione di opzioni europee su Bitcoin: un modello bivariato e l'utilizzo di reti neurali*, 2024
- Simone Benolli, *Deep Hedging: studio del metodo e integrazione delle opzioni americane come strumenti di copertura*, 2025
- Alessia Ongaro, *Approcci quantitativi e machine learning per l'allocazione dinamica di portafoglio*, 2025
- Nikola Umicevic, *Evoluzione dei prezzi dell'energia e gestione del rischio: strategie di hedging nel mercato elettrico*, 2025
- Enrico Biscaro, *Determinazione della superficie di volatilità locale attraverso le reti neurali*, 2025
- Salma Najih, *Dati alternativi e Language Models in Finanza*, 2025
- Lino Lanfredi, *Il rischio tasso d'interesse nel banking book: tecniche di hedging per la minimizzazione di Delta EVE e Delta NII*, 2025
- Vittorio Cristini, *Pricing di opzioni con modelli ibridi di volatilità: sviluppo e calibrazione in Java del modello Heston-LSV*, 2025
- Giulia Tognato, *Un confronto tra i metodi Monte Carlo e Quasi-Monte Carlo per il pricing di opzioni*, 2026
- Saad Chahid, *Rilevazione delle bolle nei prezzi degli asset: un approccio basato sul deep learning*, 2026

ORGANIZZAZIONE DI EVENTI

- 12th General AMaMeF Conference, Verona
- First Munich Climate School
- LMU Spring Workshop in Stochastics and Finance
- LMU Versicherungsmathematisches Kolloquium (Actuarial Colloquium)

SERVIZIO ACCADEMICO

- 2019–2022: Project manager (rappresentante per la LMU) e membro del Quality Board, *GrEnFIn Project*
- 2021–2023: Membro del team fondatore e organizzativo, *LMU Klimaforum*
- **Referee per:** Applied Mathematics and Optimization; Bernoulli Journal; Journal of Computational and Applied Mathematics; Mathematical Finance; Risk Journals; Springer Mathematics (books); Stochastic Processes and their Applications
- **Attività editoriale:** Guest editor per lo special issue "Financial modeling with frictions" in *Frontiers in Applied Mathematics and Statistics*

LINGUE

Italiano: madrelingua; Inglese: fluente; Tedesco: buono.

COMPETENZE INFORMATICHE

Java (contributor to finmath library, link), Python, MATLAB, Mathematica, R, C++