Andrea Stanghellini

3407420918 | andrea.stanghellini@univr.it | andrea-stanghellini-944912273

Personal Profile

I am a second-year Ph.D. student in Economics and Finance at the University of Verona, enrolled in the Mathematics for Data Analytics and Finance track. My research interests include stochastic methods for finance with a specific focus on signatures theory and their financial application, stochastic optimal control, and rough path theory.

Education

University of Verona *Verona, IT*

Ph.D in Mathematics for Data Analytics and Finance *October 2023 - Current*

- **Internal Courses:** Continuous time Econometrics (prof. Cecilia Mancini), Mathematical Statistics (prof. Catia Scricciolo), Stochastic Optimization and Control (prof. Athena Picarelli), Financial Time Series (prof. Giuseppe Buccheri and Francesca Rossi), Financial Mathematics (prof. Alessandro Gnoatto), Stochastic Processes in Finance I (prof. Sara Svaluo-Ferro).
- **External Courses:** Elements of financial risk management (prof. Kim Christensen), Discretization of Processes (prof. Jean Jacod), Mean Field Games I (prof. Luciano Campi), Mean Field Games II (prof. Giulia Livieri), Dynamic Corporate Finance (prof. Andrea Gamba), Stochastic Processes in Finance II (prof. Christa Cuchiero).

University of Padova *Padova, IT*

Master Degree in Mathematics *October 2020 - April 2023*

- Dissertation/thesis title: "CBI and Hawkes processes: theory and application to power market".
- Thesis supervisor: prof. Giorgia Callegaro
- Final evaluation: 110/110 cum Laude
- Courses: Introduction to Partial Differential Equations, Introduction to Ring and Modules Theory, Differential Geometry, Stochastic Analysis, Numerical Methods for Differential Equations, Stochastic Analysis, High Dimensional Probability for Data Science, Measure and Integration Theory, Mathematical Statistics, Dynamical Systems, Stochastic Methods for Finance, Differential Equations.

University of Padova *Padova, IT*

Bachelor Degree in Mathematics *October 2016 - February 2020*

- Dissertation/thesis title: "Hidden Markov Models: theory and application to credit risk".
- Thesis supervisor: prof. Claudio Fontana
- Final evaluation: 97/110

Teaching activities

University of Verona, department of Economics

- **Exercises in Mathematical Analysis**, Fall 2023
- **Mathematical and Statistical Preliminaries (10h)**, Summer 2024
- **Quantitative Methods for Business and Economics (Matlab Exercises) (10h)**, Fall 2024
- **Exercises in financial mathematics (20h)**, Spring 2025

Invited talks

Bertinoro (FC)

AMASES summer school in Machine Learning for Finance *18/07/2024*

- **Expected signature and market calibration of signature-based models**

Skills

Programming Python, Matlab, Mathematica
Miscellaneous Linux, LaTeX(Overleaf), Microsoft Office
Soft Skills Teamwork, Problem-solving, Engaging Presentation.

Languages

English Professional proficiency
Italian Native proficiency
Spanish Basic level