

# Nicola Bartolini

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GitHub : <https://github.com/NicolaBartolini>

## EDUCATION

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### University of Bologna

*PhD in Statistics.*

*Jan. 2022 – June 2025*

### University of Bologna

*Master degree in Quantitative Finance. **Grade:** 110/110 cum laudae*

*Sep. 2018 – Dec 2020*

### University of Pisa

*Bachelor in Banking, Finance, and Financial Markets. **Grade:** 110/110*

*Sep. 2014 – Feb 2018*

## EXPERIENCE

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### Post Doc Researcher

*University of Bologna*

01/2025 - present

*Bologna (Italy)*

### Teaching Assistant

*University of Bologna*

Spring 2025

*Bologna (Italy)*

- Tutor for the course "Python Coding and Data Science"

### Teaching Assistant

*University of Bologna*

Spring 2023-2024

*Bertinoro (Italy)*

- GreenFin Summer Schoot at Bertinoro

### Teaching Assistant

*University of Bologna*

Fall 2021-2022-2023-2024

*Bologna (Italy)*

- Lectures for the crash course in "Reassessment of Real Analysis"

### Summer job

*Bagno La Zattera*

05/2012 - 09/2012 06/2013 - 09/2013

*Donoratico (Italy)*

- Full time lifeguard on the beach

## OTHER ACTIVITIES

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### XXV Quantitative Finance Workshop

*University of Bologna*

11/04/2024 - 13/04/2024

*Bologna (Italy)*

- Organizing committee

## PUBLICATIONS

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- [1] Nicola Bartolini, Silvia Romagnoli, Rafay Abdul. "Hedging the Financial Risk of Water Scarcity: The Use of Weather Derivatives". *Modern Concepts and Practices of Climate Finance*, 1–44, 2024.
- [2] Nicola Bartolini, Silvia Romagnoli, Amia Santini. "Water Shortage and Mitigation Solutions: a focus on new physical and financial hedging tools.". *The Journal of Futures Markets*, 2025.
- [3] Nicola Bartolini, Silvia Romagnoli, Amia Santini. "A climate risk hedge? Investigating the exposure of green and non-green corporate bonds to climate risk". *Energy Economics*, 2025.

## SKILLS

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### Analytical |

- **Mathematics:** Probability Theory, Stochastic Calculus, Real and Complex Analysis, Financial Mathematics
- **Econometrics:** Time Series Analysis
- **Computational finance:** Simulations of stochastic processes via Monte Carlo method.  
Variance reduction techniques(antithetic variate and control variate), Fourier methods for option pricing

### Programming |

- **Languages:** Python (intermediate), C++ (basic), Matlab (basic), LaTeX
- **Lybraries:** Scipy, Pandas, NumPy, Matplotlib, boost(C++)
- **Software:** Docker

## LANGUAGES

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### Languages |

- **Italian:** Mother
- **English:** B2