

### Education

- January 2023 **PhD student in Applied and Computational Mathematics founded by the WASP Program,**  
- *Dynamical systems and Data driven methods,*  
KTH Royal Institute of Technology, Stockholm, Sweden.
- 2020 - 2022 **Master's degree in Mathematics,**  
With focus in the following courses: 'Statistical learning', 'Mathematical modeling in the applied sciences', 'Stochastic calculus',  
University of Verona, Italy.
- June 2022 - **Internship,**  
September **Master's Thesis:** *"Electricity Price Forecasting via statistical and deep learning approaches: the German case"*, Supervisor: Luca Di Persio and Co-Supervisor: Matthias Ehrhardt,  
2022 Bergische Universität Wuppertal, Germany.
- 2021 - 2022 **Erasmus + Study,**  
**Courses:** *"Adaptive methods for data based decision making"* and *"Interest rate modelling via SPDE's"*,  
University of Oslo, Norway.
- 2022 - 2022 **Partnership,**  
**Course:** *"Computational Algebra"*,  
University of Trento, Italy.
- 2017 - 2020 **Bachelor's degree in Applied Mathematics,**  
**Thesis:** *"Deterministic and stochastic models for opinion making"*, Supervisor: Paolo Dai Pra,  
University of Verona, Italy.

### Teaching

- Spring 2025 **SF2943**, 'Time Series Analysis'.
- Autumn 2024 **SF1672**, HT23 'Linear Algebra'.
- Spring 2024 **SF1685**, VT24 'Calculus in One Variable'.
- Autumn 2023 **SF1672**, HT23 'Linear Algebra'.
- Spring 2023 **SF1677**, VT23 'Foundation of Analysis'.

### Projects

- June 2022 - **Master Thesis: Electricity Price Forecasting via statistical and deep learning approaches: the German case,**  
September 2022 *The thesis focuses on forecasting a univariate time series using a variety of models, including inferential statistics (ARIMA and SARIMA) and neural network based models (LSTM). All the code part was done in Python, using the most famous libraries for dataframe, time series analysis and visualization.,*  
Bergische Universität Wuppertal, Germany.
- 3-9 July 2022 **Participation in the 35th ECMI Mathematical Modelling Week,**  
**Group Project:** *Deep Learning for Modeling Filamentous Sludge Bulking,*  
University of Verona, Italy.
- February 2022 **Examination project for the course Stochastic Calculus,**  
**Title:** *Lévy processes in finance and risk management,*  
University of Verona, Italy.

- December 2021 **Examination project for the course *Adaptive methods for data based decision making*,**  
*We model the effect of vaccination against COVID-19 on a population. The goal was to design a vaccination strategy which minimize the rate of deaths in the vaccinated population. We discuss the issue of privacy in the data, then we analyze the issue of fairness in the results of the model as well as in the previous vaccination actions prior to our policy decisions,*  
 University of Oslo, Norway.
- June 2021 **Examination project for the course *Mathematical modeling in the applied sciences*,**  
**Title:** *SIR model for pandemic COVID-19,*  
 University of Verona, Italy.
- February 2021 **Examination project for the course *Statistical learning*,**  
*I develop a Python software for analyzing a dataset acquired by an autonomous agent. The goal was discover the main properties of the data and, among them, relationships between variables,*  
 University of Verona, Italy.

## Publications

- Working paper: ***Deep Learning for Modeling Filamentous Sludge Bulking*,** Authors: Armando Assembleia, Andre Di Luca, Alba Gurpegui, Dennis Modesti, Aurora Poggi, Thomas Trinh, Cambridge University Press.
- April 2023 ***Electricity Price Forecasting via statistical and deep learning approaches: the German case*,** Authors: Luca Di Persio, Matthias Ehrhardt, Aurora Poggi, MDPI.

## Conferences

- 12 - 16 August 2024 **Generative AI Summer School,**  
*WASP, Norrköping, Sweden.*
- 24 - 26 July 2024 **Data-driven Dynamical Systems Summer School,**  
*University of Bremen, Germany.*
- 20 May - 21 June 2024 **Scientific Machine Learning for Simulation and Inverse Modelling,**  
*Digital Futures, Stockholm, Sweden.*
- 10-12 January 2023 **WASP Winter Conference,**  
*Norrköping, Sweden.*
- 6-10 June 2022 **Participate as student,**  
*ICCF2022: International Conference on Computational Finance,*  
 Bergische Universität Wuppertal, Germany.

## Computer Skills

Languages LaTeX, Python, MATLAB/Octave, Microsoft Excel, HTML

## Languages

Languages Italian (Mother tongue), English (Fluent)