

# Martino Zanetti

30 January 1998, Milan

*M.Sc. in Physics*

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<https://martinozanetti.github.io/>

<https://github.com/martinozanetti>

## EDUCATION

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### PhD student in Experimental Quantum Physics - University of Vienna (2023 - ongoing)

Working in the group of Quantum Imaging and Biophysics, with Prof. Dipl.-Ing. Dr. Thomas Juffmann.

Current research project: *Electron wavefront shaping with light in free space, using a modified Scanning Electron Microscope.*

Supervisor of 2 Master's and 2 Bachelor's thesis projects.

### Master's Degree in Plasma Physics - University of Milan (2020 - 2023)

Thesis project with Prof. G. Maero: *Formation and dynamics of vortex structures in a Penning-Malmberg trap.* 110/110 cum Laude.

- Core competencies and skills: charged particles dynamics, analog electronics and experimental techniques, measuring instruments and statistical data analysis; strong analytical and numerical skills; UHV and diagnostic equipment, theoretical and practical expertise in mechanics and electrical engineering; LASER and accelerator physics.
- Other strong competencies: programming languages and techniques, including parallel computing and grammar development; Monte Carlo methods applied to advanced statistical physics and simulations of complex systems dynamics and other physical systems; fluid dynamics; machine learning and DNN; environmental physics and energy supply issues, including nuclear fusion and fission; real and complex analysis, differential equations, stochastic processes.

### Bachelor's Degree in Physics - University of Milan (2017 - 2020)

Thesis with Prof. L. Miramonti: *Simulation of cosmogenic isotope production in the seabed*, 108/110.

## SOFTWARE AND PROGRAMMING ABILITIES

**Advanced:** Office Package, C, C++, C#, Python, LaTeX, Markdown

**Intermediate:** Git, MATLAB, Bash, Linux OS

**Basic:** Makefile, CSS, HTML, YAML

## LANGUAGES

**Italian:** native

**English:** B2

**French:** pre-intermediate

**German:** beginner

## OTHER EXPERIENCES

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### **Cultural Association *Lato B – L'altro lato di Milano:***

**Executive Committee Member** (2019 - 2021)

Volunteers' recruitment, training, shift organization. Management of technical equipment use and maintenance.

Related competences: teamwork skills, team management and leadership.

**Project manager** (2020 - 2023)

Planning, implementation and reporting of annual theatre project *Lunedì Teatrali* which receives funding of about 10'000€/year through the "8 per mille" program of the Waldensian Church.

Related competences: complex project management, time scheduling, fund management

### **Speaker at UNIMI Complex Systems Community Day, Department of Physics, University of Milan (14/06/2023)**

Speech title: "Forced and free dynamics of fluid vortices using magnetized electron plasmas"

**Student representative, Department of Physics** (2022 - 2023)

**Private lessons in Maths, Physics, Chemistry** (2017 - 2023)

**Attended 13<sup>th</sup> International Workshop on Non-Neutral Plasmas as a spectator** (September 2022)

### **Tinkering**

Minor repairs dealing with domestic electrical and hydraulic systems, domestic furniture and appliances, wood craftsmanship and steel welding, bicycles and sailing boats. I'm generally inclined towards innovative and creative problem-solving, especially without adequate tools.

**Karate at *Yama Karate Club – Milano*** (2005 - 2018)

Gained 1st Dan in 2012. Member of the National Team (2015 - 2018). Participated in the WSKA World Championships in 2017. Italian Team Kata Champion in 2018 (team captain).

**Volunteering at *Handicap – Su La Testa! ONLUS*** (2015 - 2023)

## PERSONAL INTERESTS

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High-altitude alpinism and ski-alpinism, rock and ice climbing, long-distance wild trekking, bike solo travelling. Sailing and windsurfing. Music. Photography. Welding, woodworking, tree-climbing and gardening.