



# PIO FRANCESCO VARRELLA

MSC IN PARTICLE PHYSICS

DATA SCIENTIST

## EDUCATION

### Master Degree on Advanced Methods in Particle Physics (2023-now):

an International Master degree (<https://imapp.eu/>) of the Dortmund University (DE) jointly with the University of Bologna (IT) and the University of Clermont-Ferrand (FR). A program recognized by the European Union with the Erasmus Mundus status and providing cutting-edge knowledges in the field of particle physics, with a focus on machine learning, detectors and statistical techniques.

### Bachelor Degree on Physics (2020-2023):

graduated at the University of Bologna, Alma Mater Studiorum, with 110/110 and honours and recognized as an Excellence within the National Plane.

### Scientific High School (2015-2020):

scientific high school diploma at the Liceo Scientifico "G. Rummo", in Benevento (IT), with adjoint IGCSE certifications.

## PROJECTS

- **Didactic Tutor (September 2024-September 2025):**

Academic didactic tutor for the Master Degree on Advanced Methods in Particle Physics at Bologna University.

Link: <https://www.unibo.it/sitoweb/pio.varrella2/en>

- **BCD Spring School (March 2024):**

Spring school at the Institut d'Études Scientifiques de Cargèse - Corse University (Corsica) about the faith and the future of the Standard Model and the current theoretical and experimental particle physics.

- **Data Science diploma (September 2023-February 2024):**

Universitary diploma at Clermont-Ferrand University.

- **Bachelor Thesis (2023):**

Thesis with the Bologna LHCb group about the search for CP violation in specific decay channels using the  $\Delta A_{CP}$  technique and Boost Decision Trees methods.

- **Physics Summer School (September 2018):**

Physics summer school at the Salerno University, Salerno (IT).

- **Physics Advanced Training Courses (2018-2019):**

Training preparatory courses for the regional and national Physics Olympiads

## ABOUT ME

I am a passionate student of particle physics with a strong interest in both theoretical and experimental advancements in the field. I am excited about the opportunity to contribute to innovative research projects that combine scientific analysis with cutting-edge technologies. My determination, intellectual curiosity, and eagerness to learn drive me to seek a thesis that presents a stimulating challenge and allows me to develop valuable skills for my academic and professional future.

## LANGUAGE

Italian

English (B2)

French (B1)

## CONTACT



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## SKILLS

- C++, Python, ROOT, LaTeX, Arduino
- Machine Learning and Neural Network methods
- Knowledges of ARGES, EFT-Fitter, Wilson and Flavio computing tools
- Knowledges of Computing Infrastructures