



Nicolò Salimbeni

✉ Email: nicolosalimbeni@gmail.com ✉ Email: nicolo.salimbeni@cern.ch

✉ Email: nicolo.salimbeni@physics.ox.ac.uk 🌐 Website: www.nicolosalimbeni.com

Date of birth: 18/08/2000 Nationality: Italian

HONOURS AND AWARDS

[08/12/2024] **2024 US HL LHC CMS Detector Upgrade Essential Contribution Award**

Accreditation: for critical contributions to the Outer Tracker test beam analysis and subsequent paper.

EDUCATION AND TRAINING

[10/2025 – Current] **PhD student**

University of Oxford <https://www.physics.ox.ac.uk/our-people/salimbeni>

City: Oxford | **Country:** United Kingdom | **Field(s) of study:** Particle physics

Hired by the ATLAS group to work on Higgs analysis and silicon detectors.

[2022 – Current] **Master of Science in Physics of the Fundamental Interactions**

DFA "G. Galilei", University of Padua

City: Padua | **Country:** Italy | **Field(s) of study:** experimental High Energy Physics | **Final grade:** 110/110 cum laude | **Thesis:** Study of the performance of the CMS Phase 2 Upgrade Silicon Outer Tracker modules

Main courses: Theoretical Physics of the Fundamental Interactions, Advanced Physics Laboratories, Nuclear and Subnuclear Physics

[2019 – 2022] **Bachelor of Science in Physics**

DFA "G. Galilei", University of Padua

City: Padua | **Country:** Italy | **Final grade:** 109/110 | **Thesis:** Measurements of b-mesons oscillations with the CMS detector

Main courses: Classical and Quantum Mechanics, Electromagnetism, Nuclear and Subnuclear physics, Advanced Programming classes

WORK EXPERIENCE

CERN

City: Geneva | **Country:** Switzerland

[01/2025 – 09/2025] **User**

Development of the data acquisition system for the CMS Tracker Upgrade.

Fermilab

City: Chicago | **Country:** United States

[30/06/2024 – 25/09/2024] **Thesis student**

For the HL-LHC, the CMS tracker will be upgraded. I worked with the CMS Outer Tracker group to finalize the analysis of a test beam and a paper on a PS module tested at Fermilab in 2023. This is also the main topic of my master's thesis.

University of Padua, Engineering department

City: Padua | **Country:** Italy

[02/2024 – 06/2024] **Tutor for the course: General physics 1**

My job was to give one 2 hours lesson a week to students of the engineering department, in the construction engineering degree, for the general physics 1 exam. The lessons covered exercises (both basic and advanced) on the theoretical topics explained by the professor in the ordinary lessons (mainly classical mechanics).

University of Padua, Physics and Astronomy department

City: Padua | **Country:** Italy

[10/2023 – 01/2024] **Tutor for the course: General physics 2**

My job was to give one 2 hours lesson a week to students of the physics and astronomy department, in the astronomy degree, for the general physics 2 exam. The lessons covered exercises (both basic and advanced) on the theoretical topics explained by the professor in the ordinary lessons (mainly electromagnetism).

Fermilab

City: Chicago | **Country:** United States

[29/07/2023 – 30/09/2023] **Intern**

I worked for the CMS experiment, in the outer tracker collaboration. My contribution was to carry out part of the data analysis of a test beam on some of the new silicon sensors (strips and pixels) to be installed for the high luminosity phase at the LHC.

LANGUAGE SKILLS

Mother tongue(s): Italian

Other language(s):

English

LISTENING C1 **READING** C1 **WRITING** C1

SPOKEN PRODUCTION C1 **SPOKEN INTERACTION** C1

Levels: A1 and A2: Basic user; B1 and B2: Independent user; C1 and C2: Proficient user

SKILLS

Programming languages

C++ - Advanced | Python - Advanced | Bash - Intermediate | LaTeX - Advanced

Software & frameworks

ROOT - Advanced | Wolfram Mathematica - Beginner | Octave - Beginner

Operating systems

Linux - Advanced user | Windows - Advanced user

PROJECTS

[03/2023 – 03/2024] **Cosmic Muons Characterization and g-Factor Measurement**

One exam in my curriculum involved building a particle physics experiment from scratch over the course of a year. This process included configuring electronics and detectors, as well as performing data analysis. We characterized cosmic muons and measured the g-factor.

SOCIAL AND POLITICAL ACTIVITIES

[2020 – 2022] **Scout Leader for AGESCI** Fabriano, Italy

[2018 – Current] **Active member of the Italian Alpine Club (CAI)** Fabriano and Padua, Italy

HOBBIES AND INTERESTS

Academic interests

Experimental high energy physics, specifically standard model. I am interested mainly in detectors and data analysis.

Personal interests

Mountain climbing, ski mountaineering, travel and discover *new* cultures, nature and sports in general

VOLUNTEERING

[06/2018 – 07/2018] **Himalayan Mountain Conservation Project** Annapurna Conservation Area, Nepal

[2017 – 2019] **Assistant Scoutmaster for AGESCI** Fabriano, Italy