EDOARDO PEDICILLO

PhD Candidate in Physics

University of Milan, Italy
TII, Abu Dhabi
edoardo.pedicillo@tii.ae
Edoardo-Pedicillo
edoardo-pedicillo
Edoardo Pedicillo

WHO AM I?

I am a passionate physicist and PhD candidate at the University of Milan, specializing in quantum computing and hardware calibration. My research focuses on developing open-source tools such as Qibocal and Qibolab, which aim to simplify quantum hardware calibration.
Beyond my academic pursuits, I have a keen interest in optimizing computing environments. I enjoy experimenting with tools like Neovim and tmux to create efficient and personalized workflows. This passion for fine-tuning systems not only enhances my productivity but also reflects my broader philosophy of continuous improvement and innovation.

EXPERIENCE

2023 – present **Associate Researcher** — **Technology Innovation Institute**
Contributing to quantum hardware calibration research and software development, including tools like Qibocal and Qibolab for quantum systems.

EDUCATION

2022 – present **PhD Candidate in Physics** — **University of Milan**
Working on open-source quantum computing tools, focusing on superconducting chip calibration and quantum system software.

2020 – 2022 **Master of Science in Physics** — **University of Milan**
Advanced studies in theoretical and computational high energy physics. Grade 110/110 cum laude.

2017 – 2020 **Bachelor of Science in Physics** — **University of Milan**
Grade 110/110

PROJECTS

Qibo
an open-source full stack API for quantum simulation and quantum hardware control.

Qibocal
software providing Quantum Characterization Validation and Verification protocols.

Qibolab
the dedicated Qibo backend for the automatic deployment of quantum circuits on quantum hardware.

Boostvqe
Boosting variational eigenstate preparation algorithms by double-bracket iteration.

PARTICIPATION IN EVENTS

July 2023 **Summer School** — **University of Trento, IT**
Summer school on Mathematical foundations of Quantum Machine Learning.

November 2023 **QTML** — **CERN, Geneva, CH**
Quantum Techniques in Machine Learning.

March 2024 **March meeting** — **Minneapolis, MN**
2024 APS March meeting.

Talks

May 2024 **Towards an open-source hybrid quantum operating system** — **Stony Brook, NY**
22nd International Workshop on Advanced Computing and Analysis Techniques in Physics Research.

June 2024 **Towards an open-source framework to perform quantum calibration and characterization** — **Copenhagen, DK**
Workshop on Quantum Software.

Posters

January 2025	**Quantum Technology Symposium.**	**Abu Dhabi, UAE**
January 2024	**QIP** Quantum Information Process.	**Taipei, TW**

PUBLICATIONS

SKILLS

Programming Languages	Framework & Libraries	OS	Tools
Python	NumPy	Linux	git
C	TensorFlow	Microsoft	tmux
C++	Keras	MacOS	neovim
Bash	Scikit-learn		slurm
LaTeX	Pandas		
HTML	SymPy		
CSS	SciPy		
	quTiP		
	Qibo		
	Qiskit		

LANGUAGES

Italian - Native
English - Fluent
German - Intermediate