



Giovanni Minuto

Home

Email: _____ Phone:

Date of birth: 09/05/1997 **Nationality:**

WORK EXPERIENCE

[11/2022 – Current]

PhD in Quantum Artificial Intelligence

Dibris, University of Genoa - Diag, Sapienza, University of Rome

City: Genoa

Country: Italy

The PhD research project fits directly into the research line of Quantum Information by exploring two of the most promising and active branches: Quantum Variational Algorithm (QVA) and Quantum Machine Learning (QML).

EDUCATION AND TRAINING

[02/2023 – 03/2023]

PhD School

Universidad Autónoma de Madrid

City: Madrid

Country: Spain

Field(s) of study: Quantum Information Theory

Program:

- Optimization Methods in Quantum Information
- Tensor Networks
- Quantum many body systems and quantum information
- Functional Analysis and Quantum Information
- Operator algebras, quantum information and quantum many body systems

[09/2020 – 09/2022]

Master's Degree in Physics

Department of Physics, University of Genoa, Italy

Field(s) of study: Quantum Mechanics

Final grade: 110/110

Thesis: Manipulation of quantum systems has reached unprecedented precision opening new possibilities to study the thermodynamics of quantum systems. The thesis will study how it is possible for a quantum system to store, manipulate and transfer energy at the quantum level, Supervisor: Prof. Paolo Solinas

[09/2016 – 10/2020]

Bachelor's degree in Physics

Department of Physics, University of Genoa, Italy

Field(s) of study: Physics

Final grade: 96/110

Thesis: Circuits with Josephson Junction, Kirchhoff's laws and mechanical analogy, Supervisor: Prof. Marina Putti

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

DIGITAL SKILLS

Quantum Computation

Qiskit | Quantum Machine Learning | IBM Quantum Experience | Quantum Variational Algorithms | Quantum Cryptography | Physics Simulation

Classic Computation

Python | Libraries: Numpy, Scikit-Learn, SciPy and Pandas | C++ | Matlab | Machine Learning | Data Structures | Algorithm's theory

Mathematics

Mathematical Analysis | Algebra | Statistics

Physics

Quantum Mechanics Theory | Thermodynamics Theory | Superconductivity Theory | Electromagnetic Theory

PUBLICATIONS

[2023]

[Quantum gradient evaluation through quantum non-demolition measurements](#)

We discuss a Quantum Non-Demolition Measurement (QNDM) protocol to estimate the derivatives of a cost function with a quantum computer. This is a key step for the implementation of variational quantum circuits.

NETWORKS AND MEMBERSHIPS

[11/2022 – Current]

Associated - INFN: ITALIAN NATIONAL INSTITUTE OF NUCLEAR PHYSICS

VOLUNTEERING

[06/2016 – 09/2016]

Assistant Teacher Pavao, Brazil

Link: <http://www.amicidellamissione.com/>
