



UNIVERSITÀ
DEGLI STUDI
DELL'AQUILA

Post-doctoral position in



QUANTUM
COMPUTING
AND
SIMULATION
CENTER

Quantum Computing Applications in Chemistry and Materials Science

The postdoctoral researcher, appointed for 2 years, will be responsible for developing new algorithms for the design and optimization of variational wavefunctions that can be implemented on NISQ (Noisy Intermediate-Scale Quantum) computers, using methods such as the Variational Quantum Eigensolver. The candidate should hold a PhD in Physics, Chemistry, Computer Science or related topics.

The research is part of a National Interest Research Project (PRIN) led by the University of L'Aquila, with the aim of developing classical and quantum methodologies for studying the electronic structure of molecular systems. The research will be carried out in collaboration with other members of the Quantum Computing research group at the University of L'Aquila and of the other universities involved in the PRIN network (Univ. Padua, CNR Modena and Univ. of Ferrara).

Applications should be received before November 16th 2023.

https://www.univaq.it/include/utilities/blob.php?table=assegna_ricerca&id=865&item=bando

For additional information please contact Prof. Leonardo Guidoni leonardo.guidoni@univaq.it

References: Electronic Structure 2023, DOI: 10.1088/2516-1075/ad018e, Physical Review Research 2023, DOI:10.1103/PhysRevResearch.5.033159, JCTC 2022, DOI:10.1021/acs.jctc.1c01170, Arxiv: arXiv:2309.15287, arXiv:2308.08056