

# Optimization in Variational Quantum Eigensolvers

## Interviene

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### Abstract

Variational Quantum Eigensolvers are one of the most promising applications in the current Noisy Intermediate-Scale Quantum (NISQ) technologies era, ranging from finding ground states of many-body quantum systems to solving combinatorial optimization problems. I will first provide an overview of the topic and present some applications. Then, I will illustrate challenges related to optimization of quantum circuit parameters in real experiments. In particular, in the last part, I will introduce Gaussian Process Models as a tool to fit the cost function landscape, in order to get more precise solutions in less time.

## Seminario

**Venerdì 10 novembre 2023**

**Aula 19, ore 11.00**

Via della Garzetta 48, Brescia

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