ICFO

# QUANTUM SEMINAR: Quantum Computing

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September 19, 2023

12:00

Seminar Room

Quantum computing is a novel and promising way to solve problems that are extremely hard or even impossible to address with classical computers.
We will discuss applications of quantum computations particularly for high energy physics but also beyond as carried out in the Center for Quantum Technologies and Applications at DESY in Zeuthen.
This concerns theoretical models from lattice gauge theories but also problems in large scale experiments such as particle track reconstruction or quantum machine learning at DESY and CERN.
In order to obtain reliable results from quantum computations we will also mention methods for readout error mitigation and dimensional expressivity analysis of quantum circuits.
**Hosted by:** Prof. Dr. Maciej Lewenstein