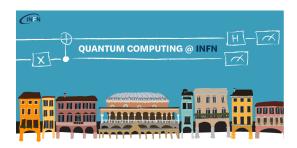Contribution ID: **13**   Type: **not specified**

Fault-tolerant simulation of Lattice Gauge Theories with gauge covariant codes

Wednesday, 30 October 2024 15:25 (20 minutes)

Quantum computers are a promising platforms to efficiently simulate systems hard to tackle on classical machines. An important challenge to overcome is the efficient control of errors that, if left undisturbed, make quantum simulations useless. A solution to this challenge is quantum error correction, that exploiting redundancy is able to correct errors. In this talk I will explore the connections between quantum error correction and lattice gauge theories and exploit them to propose a path forward for error corrected simulations of interest for high energy physics.

Sessione

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Session Classification: Quantum Simulation