Superconducting and Spin Systems for Quantum Technology

23rd Dec 202

Dipartimento di Matematica e Fisica "Ennio De Giorgi"

About us

SCAN ME

Pasquale Scarlino

EPFL, Switzerland

Prof. Scarlino leads the Hybrid Quantum Circuit (HQC) laboratory. His research focuses on the study of super/semi-conductor devices.

SCAN ME

Marco Scigliuzzo

EPFL, Switzerland

Dr. Scigliuzzo's research focus on the interaction of mechanical and superconducting devices.

Location &

Aula Anni

Collegio Fiorini, Via Per Arnesano, Lecce

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Program

Abstract

On the verge of the second quantum revolution, the newly developed technologies result in a benchtest for quantum optics. In particular, superconducting and semiconductor qubits demonstrated viable platforms both for fundamental and industial research. These short seminars aim to introduce this topic and the directions of future reasearch.

Circuits in Quantum Regime

Tutorial: lagragian and hamiltonian formulation of circuits elements and their interactions.

Speaker: Marco Scigliuzzo, **H: 9.00 -10.00**

Circuit QED and Quantum Optics

Superconducting qubits: from caracterization, to structured electromagnetic environments.

Speaker: Marco Scigliuzzo, **H: 10.15- 11.15**

Spins in Quantum Dots

Spin qubits in semiconductors and coupling to superconducting resonators to scale up.

Speaker: Pasquale Scarlino, **H: 11.30 -12:30**