ICFO

SEMINAR: Designing algorithms for photonic platforms

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November 10, 2026
15:00 to 16:00
Seminar Room

Photonics is among the most promising approaches to building a quantum computer. Photonic quantum computing covers different schemes, such as continuous- o discrete-variable encodings, as well as heralded or on-demand photon sources. In this talk, I will first review the current technology landscape and discuss available paths for scaling to a fault-tolerant quantum computer, including a spin-optical architecture proposal based n single-photon emitters. I will then turn to linear optical platforms, which are candidates f r near-term demonstrations of quantum advantage through boson sampling. I will prese t results on designing and running quantum algorithms on these near-term processo s, focusing on how they can be used for generative quantum machine learning.

Hosted by: Prof. Dr. Antonio Acin