

# SEMINAR: Quantum networks protocols and primitives

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12:00 to 13:00

Seminar Room

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In this talk, I will provide an overview of our recent proposals for the architectural and protocol layers of entanglement-based quantum networks. Treating multipartite entanglement as a shared infrastructure, I will introduce foundational routing devices, such as the quantum switch and merging repeater, designed for concurrent multi-user environments. Additionally, I will present novel diagnostic tools, including the Quantum Ping and advanced entanglement verification, that also include trajectory superposition to monitor and improve network performance and functionality.

**Hosted by:** Prof. Dr. Antonio Acín