

# Quantum Repeater Networks

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## **Abstract:**

Quantum repeaters are essential tools for implementing medium to long range quantum communication and distributed computation activities, to build a quantum internet. In this presentation the concept of quantum repeater will be explained and different types of repeater architecture proposals introduced. Furthermore, the idea of quantum repeater networks and practical endeavours to achieve this will be mentioned briefly. Finally a mathematical formalism to deal with quantum networks and a way to compare different quantum channels will also be investigated.