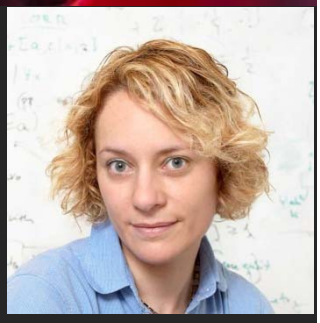
Innsbruck Physics Colloquium

Quantum internet – the certifiable road ahead



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A future quantum internet connects small quantum processors by long distance quantum communication. Here, we will discuss efforts to realize such a quantum internet, and discuss some of the many theoretical challenges and open questions in its realization.

Possibly the most well known application of quantum communication is quantum key distribution, but many other interesting applications already exist. We propose stages towards the development of a full blown quantum internet, where each stage is distinguished by the successively larger type of applications that it supports. We continue by discussing how to test for the transmission of qubits on the network.

Colloquium: Tuesday, 30.05.2017
17:15 h in lecture hall C

DK-ALM Pre-Talk: 16:30 h
Davide Orsucci
Flexible resources for quantum metrology.

Snacks will be provided in between the pre-talk and the colloquium.

FWF Der Wissenschaftsfonds.

Innsbruck Physics Colloquium, Organisation: M. Beyer, R. Kissmann, H.-C. Nägerl, A. Reimer