



## Seminar/Talk

## **Quantum Communication over long distances**

## **Rupert Ursin**

Austrian Academy of Sciences

Host: Johannes Fink

Quantum networking is the next big issue in quantum communication science. We recently implemented a WDM fiber network, deploying polarization quits for four users. This network is scalable and fully connected - the perfect start for a future quantum internet [1]. I will discuss recent experiments we performed in collaboration with the Chinese Academy of Sciences using a LEO Satellite to perform quantum link to an optical ground station in Graz. Further I will discuss my future plans to implement a 24/7 quantum network spanning on international glas fibers between Vienna-Bratislava and Budapest and possibly also beyond.[1] 1. Wengerowsky, S., Joshi, S. K., Steinlechner, F., Hbel, H. & Ursin, R. Entanglement-based wavelength multiplexed quantum communication network. Accept. Publ. Nat. (2018). (https://arxiv.org/abs/1801.06194)

## Tuesday, December 18, 2018 11:00am - 12:30pm

Big Seminar room Ground floor / Office Bldg West (I21.EG.101)



This invitation is valid as a ticket for the ISTA Shuttle from and to Heiligenstadt Station. Please find a schedule of the ISTA Shuttle on our webpage: https://ista.ac.at/en/campus/how-to-get-here/ The ISTA Shuttle bus is marked ISTA Shuttle (#142) and has the Institute Logo printed on the side.

www.ista.ac.at | Institute of Science and Technology Austria | Am Campus 1 | 3400 Klosterneuburg