

The Vienna Doctoral Programme on Complex Quantum

Systems invites you to a

## Seminar Talk

by

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### *Harnessing single photons in quantum technology*

Quantum technology employs the 'spooky' phenomena of quantum physics such as superposition, randomness and entanglement to process information in a novel way. Quantum photonics provides a promising path for both delivering quantum-enhanced technologies and exploring fundamental physics.

In this talk, I will introduce our recent work on quantum delayed-choice experiment based on multiphoton entangled states, which shows that a photon can not only be a particle or wave, but the superposition of them, even under Einstein's locality condition. In the second part of my talk, I will present our recent endeavors in developing functional nodes for quantum information processing based on integrated optics architecture and their potential applications in a metropolitan fiber network.

**Monday, 4 June, 2018**

**17:00h get-together with coffee and snacks!**

Hlawka Hörsaal (HS 9), Gußhausstraße 27-29, 1040 Vienna

Hosted by: Anton Zeilinger