





The Vienna Doctoral Programme on Complex Quantum
Systems invites you to a

## **Seminar Talk**

Xiaosong Ma

School of Physics, Nanjing University

## 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



