



e-conversion



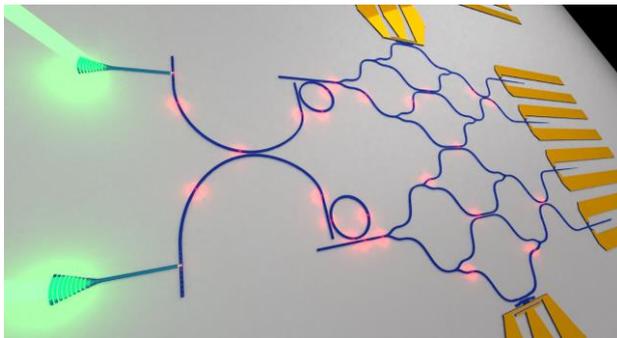
Seminarankündigung

**Dienstag, 25. Juni 2019
13:00 Uhr**

WSI, Seminarraum S 101

“Integrated quantum photonics in silicon chips”

A wide range of quantum communication, sensing and computing schemes can be implemented with single-photons as information carriers. However, scaling such approaches to large system size is an outstanding problem in quantum technology. Here we envision a versatile photonic quantum information processing system on a silicon chip, which integrates non-classical light sources and superconducting single-photon detectors with a network of nanophotonic devices. Leveraging modern nanofabrication routines ensures scalability of our approach via straightforward replication of nanoscale integrated optical devices with high reproducibility.



Nanophotonic network schematic for quantum technology applications, integrating several circuit components such as resonant light-matter interfaces to quantum emitters, nanophotonic devices and superconducting nanowire single-photon detectors.

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