



Seminarankündigung

**Dienstag, 02. Oktober 2012
10:30 Uhr**

ZNN, Seminarraum EG 0.001

“Superconducting single photon detectors for quantum information science and technology”

Single photon detectors are a key enabling technology for optical quantum information science and technology. Advanced quantum information science applications place exacting demands on the performance of detectors. A new class of detectors, based on superconducting nanowires offer single photon sensitivity from visible to mid-infrared wavelengths, with low dark counts and low timing jitter. I will discuss recent developments in terms of device design and how these low temperature detectors can be integrated into practical systems. I will describe key instances where these detectors have been implemented in quantum optics and quantum information science experiments: quantum key distribution, the characterization of quantum emitters and the operation of quantum waveguide circuits.

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