Seminar über Ultrafast Science and Technology

Referent/in: Mauro Montani, IAP, University of Bern

Titel: Polarization optical time domain reflectometer (p-OTDR) with a multichannel superconducting nanowire single photon detector for observing laser pulses propagating in optical fibers

In our experiment we use superconducting nanowire single-photon counting detectors that allows synchronous acquisition of time resolved single-photon measurements in multiple acquisition channels. With temporally resolved intensity measurements, we can detect with very high accuracy the optical loss along the fiber. In addition we have built a single photon polarimeter to measure the Stokes parameters as a function of the pulse propagation. Thus our experiment is sensitive to the polarization evolution of an optical pulse through the optical fiber.

In a next step we want to use our p-OTDR setup to observe the polarization evolution of a laser pulse propagating inside a mode-locked fiber ring-laser cavity.

Zeit: Donnerstag, 09.05.2019, 11:15 Uhr

Ort: Hörsaal B116, Gebäude Exakte Wissenschaften, Sidlerstrasse 5, Bern, Schweiz