

Physikalisches Kolloquium

Femius Koenderink, AMOLF Amsterdam

**»Antenna ideas at the nanoscale:
single emitters controlled using plasmonics«**

Einführung: C. Rockstuhl

Abstract: How do you control where to, when, and with what polarization single quantum emitters emit their stream of single photons? Complete control over light from single molecules, atoms and quantum dots is important for microscopy, spectroscopy, as well as for ultimate sources and detectors for classical and quantum information processing. I will discuss the use of metal nanostructures as miniature radio antennas coupled to single emitters to control their interaction with light. I will present scattering experiments, single molecule fluorescence experiments and cathodoluminescence spectroscopy experiments that highlight the challenges, opportunities and limitations of plasmonic and metamaterial structures for emission control.

Donnerstag, 18.06.2015, 17:30 Uhr,

KIT, Campus Süd,

Otto-Lehmann-Hörsaal, Physik-Flachbau (Geb. 30.22).

Anschließend Nachsitzung im Gastdozentenhaus „Heinrich Hertz“