Karlsruher Institut für Technologie

Fakultät für Physik

Physikalisches Kolloquium

Mark Tame, University of KwaZulu-Natal, Südafrika

»Quantum plasmonics«

Einführung: C. Rockstuhl

Plasmonics is a field of research that involves the study of light and its interaction with matter at the nanoscale. Here, electromagnetic fields coupled to electron charge density waves on metal-dielectric interfaces or localized on metallic nanostructures enable the confinement of light to scales far below that of conventional optics. This has opened up many new applications, ranging from nano-imaging, super-lensing and enhanced photovoltaics to high-resolution sensing. Most recently, researchers have started to study quantum effects in plasmonic systems in great detail. Such quantum effects have been shown to be useful for building new devices for quantum information processing at the nanoscale and probing deeper into fundamental quantum dynamics. I will present recent work on the quantum study of plasmonic systems and its related applications.

Freitag, 13.01.2017, 15:45 Uhr,

KIT, Campus Süd,
Otto-Lehmann-Hörsaal, Physik-Flachbau (Geb. 30.22).
Anschließend Nachsitzung im Gastdozentenhaus „Heinrich Hertz“

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