



Seminarankündigung

Dienstag, 28. November 2017

13:00 Uhr

ZNN, Seminarraum EG 0.001

“Plasmons and excitons at the atomic-scale”

This talk is about optics at the atomic scale, exploiting plasmons as well as excitons.

In particular it will be shown that

- a) Optical fields can be confined to atomic scale dimensions using self-assembled plasmonic nanostructures.
- b) Optical antennas can be electrically driven by the broadband quantum shot noise of electrons tunneling across its atomic-scale feed gap.
- c) The light-matter interaction in monolayer tungsten disulfide (WS₂) can be significantly enhanced by coupling the atomically thin semiconductor to a plasmonic nanoantenna.
- d) Single-photon emitters in monolayer WSe₂ can be created by inducing a strain potential well at the nanoscale gap between two gold nanorods.

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