SPECIAL SEMINAR/SONDERSEMINAR
LMU/MPQ

am:	**Mittwoch, 14. August 2013**
Uhrzeit:	**10:00 Uhr s.t.**
spricht:	**Dr. Birgit Hausmann** **School of Engineering and Applied Sciences (SEAS)** **Research Group of Marco Loncar** **Harvard University** **22 Oxford Street** **Maxwell-Dworkin 127** **Cambridge, MA 02138** **USA**
Thema:	**Diamond Photonic Cavities for Integrated Networks**
Ort:	**LMU, Faculty of Physics, Chair Prof. T. W. Hänsch** **Discussion Room H 311**

gez. Prof. T.W. Hänsch

Abstract

The realization of efficient optical interfaces for solid-state atom-like systems is an important problem in quantum science with potential applications in quantum communications and quantum information processing. We describe and demonstrate techniques for coupling single Nitrogen Vacancy (NV) centers to diamond nanophotonic devices. Specifically, we present efficient collection of single photons via coupling single NC Centers to diamond nanowires, integration on-chip as well as spontaneous emission of the NV centre's zero-phonon line fluorescence. In addition, applications of planar diamond devices beyond the quantum realm are discussed.