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Einladung
zum
Physikalischen Kolloquium

Montag, 13.07.2015
16:15 Uhr in N24/H13

Prof. Dr. Kurt Busch
AG Theoretische Optik & Photonik
Humboldt-Universität zu Berlin and
Max-Born-Institut, Berlin

"Nano-Photonics: From Photonic Crystals to Plasmonics"

Over the past years, nano-structured photonic materials have witnessed tremendous progress that has been driven by a combination of advances in micro- and nano-fabrication, sophisticated characterization, and the develop-ment of a detailed theoretical understanding. These materials facilitate a far-reaching control of light propagation and light-matter interaction. In turn, this leads to numerous applications.
In this talk, a (necessarily biased) overview of certain of the above aspects will be presented. Specifically, the focus will be on the development of three-dimensional Photonic Crystals and the resulting modified radiation dynamics of embedded emitters. Further, the evolution of the Photonic-Crystal concept into the more general perspective of the so-called metamaterials and its relation to the field of plasmonics will be discussed. Finally, a brief outlook to the emerging field of nano-scale quantum optics will be presented.

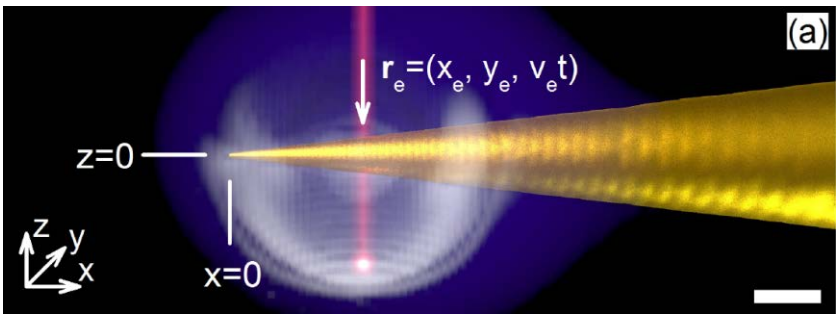

Illustration of a swift electron interacting with the self-induced field at a nano-scale metallic tip.
Scale-bar: 200 nm.

Ab 15.45 Kaffee, Tee und Kekse vor dem Hörsaal H13
Organisation: **Prof. Dr. F. Jelezko, Tel. 23750**
Host: **Prof. Dr. C. Koch, Tel. 36400, off.: 22951**