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Public Evening Talk

Wednesday, October 21, 2015, 18:30 h
Magnus-Haus Berlin, Am Kupfergraben 7, 10117 Berlin

Prof. Mikhail Lukin
Harvard University, Cambridge, Ma, U.S.A.

Exploring new frontiers of quantum optical science

To attend the Public Evening Talk please register:

http://www.dpg-physik.de/dpg/magnus/formulare/formular_2015-10-21/anmeldung-2015-10-21.html

On this occasion, Mikhail Lukin of Harvard University, Cambridge, Ma, USA, will be awarded the **Julius Springer Prize 2015**. The prize is awarded jointly by the journals Applied Physics A and B. Afterwards drinks will be served in the “Ausstellungsräume”

Abstract

The interface between quantum optics, nanoscience and quantum information science is emerging as an exciting frontier linking photonic technologies and the quantum world. Specific examples include the use of quantum optical techniques for manipulation of individual atom-like impurities at the nanoscale and for the realization of hybrid systems combining ultracold atoms with nanophotonic devices. We will discuss how these techniques are used for experiments on quantum nonlinear optics and quantum networks, and new applications for magnetic resonance imaging with single atom resolution and nanoscale sensing in biology and material science.