Karl Friedrich Bonhoeffer Lecture

Thursday, 25th April 2013 - 6 pm, s.t.
Manfred Eigen Hall,
Max Planck Institute
for Biophysical Chemistry
Am Faßberg 11, 37077 Göttingen

Prof. Dr. Mikhail Lukin
Department of Physics, Harvard University, Cambridge, USA

Exploring new frontiers of optical science: from quantum information to biosensing

We will discuss recent developments involving a new scientific interface between optics, quantum information science, nanoscience, and biology. Specific examples include the use of quantum optical techniques for manipulation of individual spins using atom-like impurities in diamond and for controlling individual optical photons using nano-photonic systems. Emerging applications of these techniques for nanoscale sensing in biological systems and life science will be discussed.