



# Karl Friedrich Bonhoeffer Lecture

Thursday, 25<sup>th</sup> 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.



(Image: Stephanie Mitchell/Harvard Staff Photographer)

Host: Stefan W. Hell