

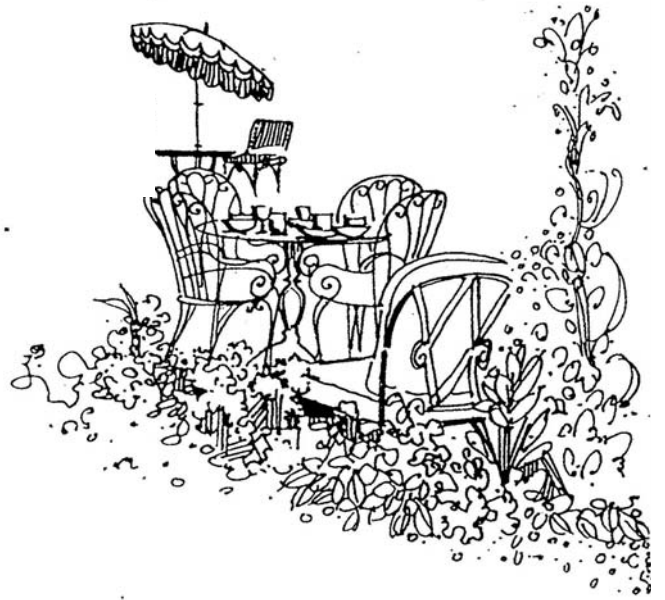
Chez Pierre

Presents ...

Monday, November 9, 2009

12:00pm

MIT Room 4-331



Mikhail Lukin

Harvard University

“Quantum Optical Physics at Nanoscales”

In this talk we will discuss our recent work within a new scientific interface between quantum optics, many body physics, nanoscience and quantum information science. Specific examples include quantum manipulation of individual spins and photons using atom-like impurities in diamond and control of light-matter interactions using sub-wavelength localization of optical fields. Potential applications of these techniques, including room-temperature quantum information processors, quantum networks based on entangled spins and photons, and nanoscale magnetic sensing will be described.