

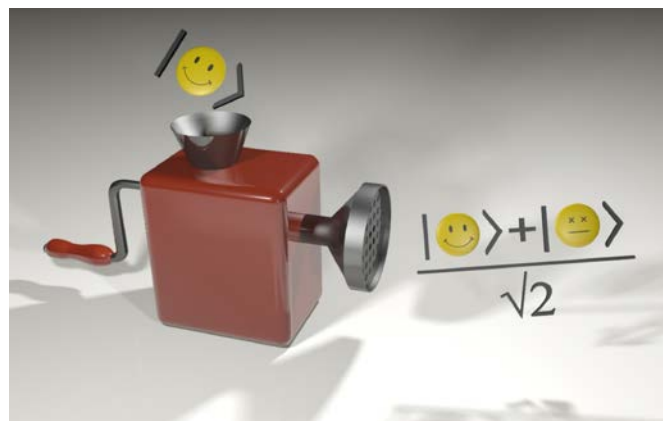
**Einladung**  
zum  
**Physikalischen Kolloquium**  
**Montag, 07.11.2016**  
**16:15 Uhr in N24/H13**



**Professor Dr. Myungshik Kim**  
Department of Physics  
Chair in Theoretical Quantum Information Science  
Imperial College London

**Single photon operations**

Quantum mechanics says that a light field is composed of photons, but who cares about single photons while even a small laser pointer emits trillions of photons per second? Quantum optics researchers are now able to localize single photons for a test of various theories in fundamental physics including nonlocalities and the Schroedinger's cat paradox. As well as the fundamental interests, there have been proposals and realizations of new technology based on single-photon operations for quantum key distributions and precision measurements. In this talk, we show how we can achieve operations at the single photon level. We then show what we can do with the single photons for the study of foundations and applications of quantum physics.



Ab 16.00 Uhr Kaffee, Tee und Kekse vor dem Hörsaal H13

**Organisation: Prof. Dr. F. Jelezko, Tel. 23750, Host: Prof. Dr. M. Plenio, Tel. 22900, off.: 22911**