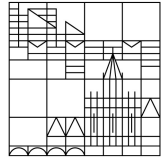


Physikalisches Kolloquium

Universität
Konstanz



Di 31.05.22
15:15 Uhr
R 513

Im Anschluss Kaffee/Tee



Prof. Dr. Lukas Novotny
ETH Zürich

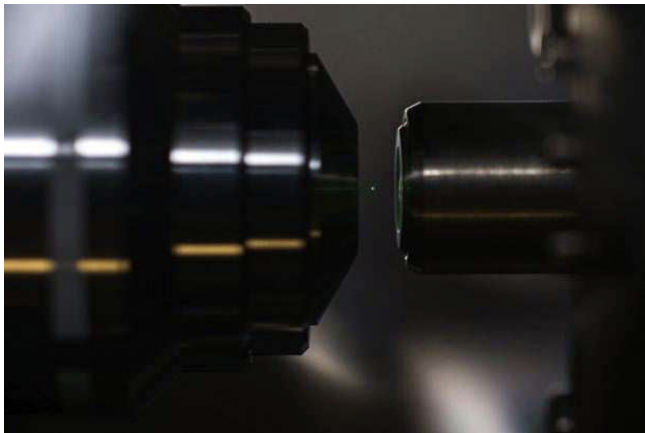


Figure 1: Photograph of light scattered from a laser-trapped diamond nanoparticle.

Levitodynamics

We aim at generating macroscopic quantum superpositions using levitated nanoparticles in ultrahigh vacuum. Using both active feedback techniques we cool the particle's center-of-mass temperature to its quantum ground state and observe quantum signatures in the spectrum of the scattered light. The vacuum-trapped nanoparticle is an ideal model system for studying non-equilibrium processes, nonlinear dynamics and ultras-small forces.