



SPP 1929 – Seminar

12. Juni 2017, 10:00 Uhr

Universität Ulm

Raum 45.2.304

Albert-Einstein-Allee 45, 89081 Ulm

Krzysztof Jachymski
(Universität Stuttgart)

Cold atoms in reduced dimensions: resonances, reactions and sensing

Cold atoms can be placed in tight optical traps which effectively reduce the dimensionality of the system, opening the way for simulations of 1D quantum wires and 2D materials. I will discuss how to describe atomic collisions in the presence of external confinement and control the scattering properties.

I will demonstrate that the collisional properties are very sensitive to external electromagnetic fields, which can be used for quantum sensing.