

KIDS TALK

“A Single Atom Thermometer for Ultracold Gases”

Speaker: Daniel Mayer, AG Widera

Abstract:

Ultracold quantum gases are an amazing experimental tool to learn more about quantum mechanics, because these systems provide perfect purity and at the same time the flexibility to tailor interactions and potentials. Therefore these systems are widely used to mimic the Hamiltonians of other systems, which are difficult to access themselves.

In our quantum gas experiment, we combine a Rubidium Bose-Einstein-condensate with a single Cesium impurity and study the effects arising when the impurity is immersed into the Rubidium gas.

In my talk, I will first give you the very basics of cold atom experiments by briefly explaining the most important tools for trapping, cooling and imaging of cold gases. I then will explain, how we use a single Cesium atom to measure the temperature of a cold Rubidium cloud.

When: Friday, April 29th 2016, **10:00 am**

Where: Room 46-387/388

All undergraduate and graduate students as well as postdocs are welcome and encouraged to join our discussion!

***** COFFEE AND COOKIES WILL BE SERVED *****

For questions, comments or suggestions: othomas@physik.uni-kl.de

