



Physikalisches Kolloquium
Einladung

Physics Colloquium
Invitation



Monday, 15 July 2019



Lecture Hall N24/H13, 16:15

Coffee and cookies will be served in front of the lecture hall from 16:00

A Few-Body Perspective of Ultracold Quantum Matter

Prof. Jose D’Incao

JILA
NIST and Department of Physics,
University of Colorado
Boulder, Colorado, USA



In the past few years, the progress made by the field of ultracold atoms has increasingly been translated into promising prospects for controlling atomic behavior. The present day ability to control interactions in an ultracold quantum gas enables the prediction and realization of a complex array of quantum phenomena that interconnect a number of different physics subfields, including atomic, optical, condensed matter, nuclear physics, and chemistry. The rich and fundamental nature of few-body interactions in ultracold gases represent opportunities for exploring novel phases of matter and offers a path for understanding strongly correlated collective phenomena. In this talk I will discuss how few-body systems can be used to study a variety of quantum phenomena in ultracold gases, including the counterintuitive binding phenomena associated to the Efimov effect, chemical reactions, and non-equilibrium dynamics in isolated quantum systems.

