



## Einladung

zum

### Seminar des Instituts für Quantenphysik

**Prof. Dr. Barry Garraway**  
University of Sussex

## ***Adiabatic dressed potentials with cold atoms: Quantum technology applications***

Dienstag, den 14.11.2017  
11:00 Uhr  
O26/4309

Dressing atoms with radio-frequency and microwave radiation opens up new possibilities for cold atoms, and condensates, in new types of trap and in new topologies involving waveguides [1,2]. This is because of the flexibility inherent in the vector coupling of a magnetic dipole moment to electromagnetic fields which can be varied in time, frequency, orientation and space. This talk will introduce the adiabatic potentials and adiabatic trapping of atoms and give examples of the different types of atom trap together with applications to quantum technology.

[1] Topical Review: Recent developments in trapping and manipulation of atoms with adiabatic potentials, B.M. Garraway and H. Perrin, J. Phys. B 49, 172001 (2016).

[2] Trapping atoms with radio-frequency adiabatic potentials, H. Perrin and B.M. Garraway, in Advances in Atomic, Molecular, and Optical Physics, vol. 66, (2017) pp. 181-262. (arXiv:1706.08063.)