KOLLOQUIUM DES SFB/TRR 49
gemeinsam mit Theoretisch-Physikalischen Kolloquium

Donnerstag, den 14.11.2013

Es spricht:
Prof. Dr. Igor Lesanovsky
The University of Nottingham

zum Thema:
“Dissipative binding and glassy relaxation in Rydberg lattice gases”

Abstract
The most recent generation of cold atoms experiments uses atoms in Rydberg states to explore many-body phenomena. In this talk I will focus on the non-equilibrium dynamics of such systems where non-trivial behaviour is generated by the competition between coherent laser excitation, dissipation and the strong interaction between Rydberg atoms. I will show that the large degree of tunability allows to engineer non-local dissipation which leads to an effective binding mechanism between atoms. Moreover, I will discuss the relaxation of Rydberg lattice gases, showing that it is hierarchical and strongly correlated. This establishes a connection to kinetically constrained systems that are used in soft condensed matter physics as models for the description of glassy phenomena.

Raum: 46-576
Zeit: 15:30 Uhr

Gäste sind herzlich willkommen. Die Dozenten der Theoretischen Physik