



**CO.CO.MAT**

CONTROL OF QUANTUM CORRELATIONS IN TAILORED MATTER  
SFB/TR 21 – STUTTGART, ULM, TÜBINGEN

## Seminar

**Prof. Charles Adams**

(Durham University)

### Optical detection of highly excited Rydberg states

We will report on our experimental progress towards quantum entanglement using Rydberg excitation of rubidium atoms in an optical lattice. Recently we have demonstrated direct optical detection of highly excited Rydberg states (up to  $n=124$ ) using electromagnetically induced transparency (EIT). By studying the EIT resonance lines as a function of applied electric field we find evidence for a low density plasma produced by photo-ionization.

**Wann?** Mittwoch 13.12.2006, 14:00 Uhr

**Wo?** Universität Stuttgart, NWZ II, Raum 2.136