



COHERENCE: Cooperativity in Highly Excited Rydberg Ensembles — Control and Entanglement



ITN-COHERENCE cordially invites you to attend the

LECTURE SERIES of
COHERENCE visiting
Professor Chris GREENE
(University of Colorado)

on Selected topics in
**Atomic, molecular
and optical physics**

25 - 27 June 2012



Lectures daily from 10:00 to 11:30 and from 14:00 to 15:30
Participant registration on Monday, 25 June, 09:00

Tentative list of subjects

Collision theory

- partial wave expansion
- Wigner threshold law, generalizations
- effective range theory
of the scattering length
- long-range interactions
- multichannel quantum defect theory
Rydberg states
ultracold collisions and
Fano - Feshbach resonances
frame transformations

Strongly-coupled degrees of freedom

- adiabatic representation
- Landau-Zener transitions
- multipath interference phenomena
- Fermi's pseudopotential
 - ultralong-range Rydberg molecules
- mean-field theory of BECs
- hyperspherical coordinates
- universal Efimov physics
- 3-body recombination

**at the Physics Institute of the
University of Heidelberg,
Im Neuenheimer Feld 226
(ground floor, conference room II)**

Lecture series will be accompanied by:
Three Lab Tours
Two POSTER sessions
(on Monday and Tuesday 18:00 to 20:00)
The world-famous PI barbecue

Please find more information and register at:
<http://coherence.physi.uni-heidelberg.de/greene1.php>

No registration fees required.

