

422nd Wilhelm and Else Heraeus Seminar Quo Vadis BEC?

Wednesday, October 29, 2008:

- 08.45–09.00 Ernst Dreisigacker (Hanau/Germany):
Opening Remarks
- 09.00–09.45 Alain Aspect (Palaiseau/France):
Direct Observation of Anderson localization of matter-waves in a controlled disorder
- 09.45–10.30 József Fortágh (Tübingen/Germany):
Ultracold atoms near nanofabricated surfaces
- 10.30–11.00 coffee break
- 11.00–11.45 Klaus Sengstock (Hamburg/Germany):
Mixtures of ultracold quantum gases
- 11.45–12.30 Walter Hofstetter (Frankfurt/Germany):
Strong correlations in ultracold atoms
- 12.30–14.00 lunch
- 14.00–14.30 Michele Modugno (Florence/Italy):
Anderson localization of a non-interacting Bose-Einstein condensate
- 14.30–15.00 Stefan Trotzky (Mainz/Germany):
Storing light in an atomic Mott-insulator
- 15.00–15.30 Matthias Ohliger (Potsdam/Germany):
Diagrammatic Green's function approach to the Bose-Hubbard model
- 15.30–16.30 coffee break + poster session 1
- 16.30–17.00 Christoph Weiss (Oldenburg/Germany):
Bose-Einstein condensates in a double well: Mean-field chaos and multi-particle entanglement
- 17.00–17.30 Selim Jochim (Heidelberg/Germany):
Towards a finite ensemble of ultracold fermions
- 17.30–18.30 poster session 2
- 18.30–20.00 dinner
- 20.00–20.45 Vanderlei Bagnato (Sao Carlos/Brazil):
Evidences of quantum turbulence and vortex/anti-vortex configurations in a BEC
- 20.45–21.30 Murray J. Holland (Colorado/USA):
Hall effects in Bose-Einstein condensates in a rotating optical lattice

Thursday, October 30, 2008:

- 08.30–09.15 Oliver Morsch (Pisa/Italy):
Coherent control of dressed matter waves in driven optical lattices
- 09.15–10.00 Jörg Schmiedmayer (Wien/Austria):
Watching (de) coherence and quantum noise in mesoscopic many body systems
- 10.00–10.30 coffee break

- 10.30–11.15** Markus Oberthaler (Heidelberg/Germany):
Number squeezed states and entanglement in degenerate Bose Gases
- 11.15–12.00** Jens Eisert (Potsdam/Germany):
Quenches, non-equilibrium dynamics, and entanglement in systems of atoms in optical lattices
- 12.00–12.45** Ralf Schützhold (Duisburg-Essen/Germany):
Dynamical quantum phase transitions
- 12.45–14.00** lunch
- 14.00–14.45** Maciej Lewenstein (Barcelona/Spain):
Ultracold atoms artificial gauge fields - recent progress
- 14.45–15.30** Artur Widera (Bonn/Germany):
A bottom-up approach to ultracold quantum gases: Single neutral atoms and more
- 15.30–16.00** coffee break
- 16.00–16.30** Thomas Gasenzer (Heidelberg/Germany):
Renormalisation-group approach to far-from-equilibrium dynamics of ultracold quantum gases
- 16.30–17.00** André Eckardt (Barcelona/Spain):
Dressed matter waves: Manipulating many-body quantum systems by strong time-periodic forcing
- 17.00–17.30** Steven Knoop (Innsbruck/Austria):
Atom-dimer collisions at nanokelvin temperatures: Efimov physics and exchange reactions
- 17.30–18.00** poster session 3
- 18.00–18.30** Sergej Demokritov (Münster/Germany):
Quantum coherence due to Bose-Einstein condensation of parametrically driven magnons
- 18.30–19.00** Andre Mysyrowicz (Palaiseau/France):
Highly quantum degenerate excitons in Cu_2O
- 19.00–19.30** poster session 4
- 19.30–21.00** dinner ("Heraeus Evening")

Friday, October 31, 2008:

- 08.30–09.15** Tilman Pfau (Stuttgart/Germany):
Rydberg atoms in a Bose-Einstein Condensate
- 09.15–10.00** Hans-Peter Büchler (Stuttgart/Germany):
Quantum critical behavior in strongly interacting Rydberg gases
- 10.00–10.30** coffee break
- 10.30–11.15** Randall Hulet (Houston/USA):
Pairing in an atomic Fermi gas
- 11.15–12.00** Henk Stoof (Utrecht/The Netherlands):
Unbalanced Fermi mixtures
- 12.00–12.45** Wilhelm Zwerger (München/Germany):
Attractive Fermi gases at infinite coupling
- 12.45–14.00** lunch