Annual Retreat of the SFB/TRR49, Kaiserslautern, October 7-8, 2010

Programme

Thursday, October 7, 2010

1. Ultracold Gases		
10:00 (5)	Michael Lang	*Welcome*
10:05 (12+8)	A3	*Real-space dynamics and correlations of strongly interacting quantum lattice gases*
10:25 (12+8)	A5	*Advanced numerical methods for correlated quantum gases*
10:45 (12+8)	A6	*Flavour-selective Mott transitions of ultracold quantum gases on optical lattices*
11:05 (15)		**Break**

2. Particle and Magnon Gases		
11:20 (12+8)	A9	*Ultracold Bose gases with variable interactions*
11:40 (12+8)	A11	*Thermodynamics and dynamics of quasi one-dimensional quantum systems*
12:00 (12+8)	A10	*Designing spin-spin interactions in cold ion crystals*
12:20 (12+8)	A7	*Collective effects and instabilities of a magnon gas*
12:40 (12+8)	A8	*Interacting magnons and critical behavior of bosons*
13:00 (90)		**Lunch**

3. Quantum Spin Systems		
14:30 (12+8)	B1	*Interacting magnetic excitations in quantum spin systems – Thermodynamic investigations*
14:50 (12+8)	B2	*Ab initio modelling and design of correlated materials*
15:10 (12+8)	B3	*Correlations in antiferromagnets*
15:30 (30)		**Coffee Break**

16:00 (60)	**Poster Flash Presentations**

17:00 (30)	**Break**
17:30 (90)	**Mitgliederversammlung**
19:00 (60)	**Dinner**
20:00	**Poster Session**

Friday, October 8, 2010

7:00 – 8:30	**Breakfast**

4. Quantum Spin Systems and Charge-Transfer Salts		
8:30 (12+8)	B4	*Single crystal growth of tunable quantum critical materials*
8:50 (12+8)	B5	*Rational design with input from DFT calculations and preparation of coordination polymer-based quantum magnets*
9:10 (12+8)	B6	*Collective phenomena in organic charge-transfer salts close to the Mott transition*
9:30 (12+8)	B7	*Renormalized mean-field theory and variational Monte-Carlo studies for organic superconductors*
9:50 (12+8)	B8	*Photoemission spectroscopy and femtosecond dynamics in organic charge-transfer salts probed by time-, angular-resolved and X-ray photoemission*
10:10 (12+8)	B9	*Thin film and microcrystal investigations on organic charge transfer systems*
10:30 (30)		**Coffee Break**
11:00 (12+8)	B10	*Design, synthesis, physical and theoretical characterisation of new charge-transfer complexes*
11:20 (12+8)	B11	*Low-frequency electron dynamics of organic charge-transfer salts studied by fluctuation spectroscopy*
11:40 (12+8)	B12	*Investigation of electron correlation in organic charge transfer salts using scanning tunneling spectroscopy*
12:00		**Lunch**