

**International Symposium of the SFB/TRR 49,
 Berlin Harnack-Haus, March 2 - 4, 2010,
 “Novel states in correlated condensed matter – from model systems to real materials”**

Program

Tuesday, March 2, 2010

1. Session Interacting Bosonic and Fermionic Quantum Gases		
9:00 (5)	M. Lang	<i>Welcome</i>
9:05 (25+10)	E. Demler	<i>Competing orders in ultracold Fermi gases</i>
9:40 (25+10)	I. Bloch	<i>Non-equilibrium dynamics of strongly interacting Bosonic and Fermionic quantum gases</i>
10:15 (25+10)	M. Zwierlein	<i>Observation of Fermi-polarons in a tunable Fermi liquid of ultracold atoms</i>
10:50 (30)	Coffee Break	

2. Session Low-D Quantum Spin-Systems		
11:20 (25+10)	Ch. Ruegg	<i>The spin ladder: beauty and the beast of quantum magnetism</i>
11:55 (25+10)	F. Essler	<i>Finite temperature dynamics of gapped quantum spin chains</i>
12:30 (60)	Lunch	

3. Session Correlated π-Electron Systems		
13:30 (25+10)	K. Kanoda	<i>Spins in triangular-lattice organics</i>
14:05 (25+10)	S. Blundell	<i>κ-phase BEDT-TTF salts as model systems for correlated physics</i>
14:40 (25+10)	M. Dressel	<i>Tuning the dimensionality in correlated electron systems</i>
15:15 (30)	Coffee Break	

4. Session Novel Superconductors		
15:45 (25+10)	M. Imada	<i>Electronic structure of correlated electron systems revealed by first principles method: Fe-based superconductors and organic conductors</i>
16:20 (25+10)	B. Büchner	<i>From magnetism to superconductivity in Fe-pnictides</i>
16:55 (25+10)	M. Sigrist	<i>Recent developments for non-centrosymmetric superconductors</i>
17:30 (60)	Break	

18:30 (60)	Dinner	
19:30 (120)	Poster Session	

Wednesday, March 3, 2010

7:30 – 9:00	Breakfast	
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5. Session Mott Transition and Superconductivity		
9:00 (25+10)	M. Ogata	<i>Mott transition and d-wave superconductivity in the 2D-Hubbard model in the strongly correlated regime</i>
9:35 (25+10)	J. Merino	<i>Interplay of Coulomb correlations and geometrical frustration in quasi-2D organic molecular compounds</i>
10:10 (25+10)	T. Sasaki	<i>Disorder effects on the Mott transition in organic conductors</i>
10:45 (30)	Coffee Break	

6. Session Many-Body Effects in Ultracold Quantum Gases		
11:15 (25+10)	T. Pfau	<i>Coherent control of strongly interacting Rydberg atoms and molecules</i>
11:50 (25+10)	K. Sengstock	<i>Ultracold quantum gases in hexagonal optical lattices</i>
12:25 (65)	Lunch Break	

7. Session Interacting Magnon Gases		
13:30 (25+10)	S. Rezende	<i>Theory of Bose-Einstein condensation in a microwave-driven magnon gas</i>
14:05 (25+10)	S. Demokritov	<i>Kinetics and Bose-Einstein condensation of parametrically-driven magnons at room temperatur</i>
14:40 (25+10)	A. Slavin	<i>Correlated states of an array of coupled nonlinear spin-torque nano-oscillators: quasi-chaos, global synchronization, frustration</i>
15:15 (30)	Coffee Break	

8. Session Fluctuations and Phase Transitions		
15:45 (25+10)	W. Metzner	<i>Turning a first-order quantum transition continuous by fluctuations</i>
16:20 (25+10)	A. Tsvelik	<i>Influence of critical thermal fluctuations on the spectral function in 2D superconductors and SDW systems</i>
16:55 (25+10)	Ch. Hotta	<i>Quantum electric dipoles in dimer-Mott insulators</i>
17:30 (25+10)	J.A. Schlueter	<i>Control of orbital ordering in magnetic coordination polymers</i>

18:05 (55)	Break	
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19:00 (60)	Conference Dinner	
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Thursday, March 4, 2010

7:30 – 9:00

Breakfast

9. Session Novel States in Low-D Magnets and Superconductors

9:00 (25+10)	A. Tennant	<i>Spin ladders as model correlated systems</i>
9:35 (25+10)	M. Braden	<i>Coupling of electronic and magnetic order in layered transition-metal oxides</i>
10:10 (25+10)	G. Zwicknagl	<i>Breaking translational symmetry by population imbalance</i>
10:45 (25+10)	J. Wosnitza	<i>Evidence for a novel superconducting state in layered organic conductors</i>
11:20 (5)	M. Lang	<i>Concluding Remarks</i>

11:25

Lunch