

Annual Retreat of the SFB/TR 49, Niedernhausen, September 20 – 21, 2012

Programme

Thursday, September 20, 2012

1. Ultracold Gases & Cold Ion Crystals		W. Hofstetter/ M. Fleischhauer
10:00 ⁽⁵⁾	Michael Lang	<i>Welcome</i>
10:05 ⁽¹²⁺⁸⁾	Daniel Cocks (A3)	<i>2D topological insulators in optical lattices: interactions and spin-orbit coupling</i>
10:25 ⁽¹²⁺⁸⁾	Michael Fleischhauer (A5)	<i>Advanced numerical methods for correlated quantum gases</i>
10:45 ⁽¹²⁺⁸⁾	Elena Gorelik (A6)	<i>Dimensional aspects of antiferromagnetism and proximity effects</i>
11:05 ⁽¹²⁺⁸⁾	Herwig Ott (A9)	<i>Pair correlations, density profiles and equation of state of strongly correlated one-dimensional Bose gases</i>
11:25 ⁽¹⁵⁾	Coffee Break	
11:40 ⁽¹²⁺⁸⁾	René Gerritsma (A10)	<i>Simulating quantum spin systems in planar ion traps</i>
12:00 ⁽¹²⁺⁸⁾	Jesko Sirker (A11)	<i>Dephasing, relaxation and thermalization in one-dimensional quantum models</i>

2. Magnon Gases		M. Fleischhauer
12:20 ⁽¹²⁺⁸⁾	Oleksandr Serha (A7)	<i>A phonon mediated Bose-Einstein magnon condensation</i>
12:40 ⁽¹²⁺⁸⁾	Peter Kopietz (A8)	<i>Thermalization of magnons in YIG</i>
13:00 ⁽⁶⁰⁾	Lunch	
13:40 ⁽²⁰⁾	<i>Please hand over the Poster Flash Presentation files for projects B1 to B12 to U. Tutsch</i>	

3. Quantum Spin Systems (1) & Cornelius Krellner		J. Sirker
14:00 ⁽¹²⁺⁸⁾	Bernd Wolf (B1)	<i>Interacting magnetic excitations in quantum spin systems – Thermodynamic investigations</i>
14:20 ⁽¹²⁺⁸⁾	Roser Valentí (B2)	<i>Correlation and relativistic effects in a few families of Mott insulators</i>
14:40 ⁽¹²⁺⁸⁾	Sebastian Eggert (B3)	<i>Edge states in the Kagome lattice</i>

15:00 (12+8)	Cornelius Krellner	<i>Polyaromatic hydrocarbons: New playground to study high-temperature superconductivity</i>
15:20 (25)	Coffee Break	
15:20 (25)	<i>Please hand over the Poster Flash Presentation files for projects A3 to A11 to U. Tutsch</i>	

15:45 (60)	Poster Flash Presentations	
16:45 (15)	Break	

17:00 (60)	Mentoring	
18:00 (60)	Mitgliederversammlung	
19:00 (60)	Dinner	

20:00	Poster Session & Mentoring	
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Friday, September 21, 2012

7:30 – 9:00	Breakfast	
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4. Quantum Spin Systems (2)		R. Valentí
9:00 (12+8)	Franz Ritter (B4)	<i>Single crystal growth of tunable coupled-dimer systems and triangular antiferromagnets</i>

5. Charge-Transfer Salts		R. Valentí/ M. Lang
9:20 (12+8)	Sebastian Köhler (B6)	<i>Exploring the doping dependence of the Mott transition on X-ray irradiated crystals of κ-(ET)₂Cu[N(CN)₂]Cl</i>
9:40 (12+8)	Luca Tocchio (B7)	<i>Spin-liquid and spiral-order phases in the anisotropic triangular lattice for organic charge-transfer salts</i>
10:00 (12+8)	Gerd Schönhense (B8)	<i>New Developments in Photoemission and Reflection Spectroscopy on Charge Transfer Systems</i>

10:20 (20)	Coffee Break	
10:40 (12+8)	Milan Rudloff (B9)	<i>Thin film and microcrystal investigations on organic charge transfer systems</i>
11:00 (12+8)	Martin Baumgarten (B10)	<i>Synthesis of donors and acceptors for CT complexes</i>
11:20 (12+8)	Jens Müller (B11)	<i>Multiferroicity in the organic charge-transfer salt κ-(ET)₂Cu[N(CN)₂]Cl: electric-dipole-driven magnetism</i>
11:40 (12+8)	Torsten Methfessel (B12)	<i>Preparation of clean surfaces on κ-[ET]₂Cu[N(CN)₂]Br-crystals</i>
12:00 (15)	Break	
12:15 (60)	Lunch	