

**8th Annual Retreat of the SFB/TR 49, Hotel Heinz, Höhr-Grenzhausen,
September 25 – 26, 2014**

Programme

Thursday, September 25, 2014

1. Ultracold Gases & Cold Ion Crystals		W. Hofstetter / H. Ott
10:00 ⁽⁵⁾	Michael Lang	<i>Welcome</i>
10:05 ⁽¹²⁺⁸⁾	Andreas Geißler (A3)	<i>Inhomogeneous quantum phases and dynamics in ultracold gases and hybrid atom-ion systems</i>
10:25 ⁽¹²⁺⁸⁾	Sebastian Eggert (A5)	<i>Advanced numerical methods for correlated quantum gases</i>
10:45 ⁽¹²⁺⁸⁾	Herwig Ott (A9)	<i>Ultracold Bose gases with variable interactions</i>
11:05 ⁽²⁵⁾	Coffee Break	
11:30 ⁽¹²⁺⁸⁾	F. Schmidt-Kaler (A10)	<i>Designing spin-spin interactions in cold ion crystals</i>
11:50 ⁽¹²⁺⁸⁾	Artur Widera (A12)	<i>Multi-polaron effects with spinless and spinful impurities in a bosonic quantum gas</i>

2. Quantum Spin Systems (I)		C. Krellner
12:10 ⁽¹²⁺⁸⁾	Bernd Wolf (B1)	<i>Interacting magnetic excitations in quantum spin systems – Thermodynamic investigations</i>
12:30 ⁽¹⁷⁺⁸⁾	Harald Jeschke (B2)	<i>Ab initio modelling and design of correlated materials</i>
12:55 ⁽⁶⁵⁾	Lunch	

3. Quantum Spin Systems (II)		M. Lang
14:00 ⁽¹²⁺⁸⁾	Sebastian Eggert (B3)	<i>Correlations in antiferromagnets</i>
14:20 ⁽¹²⁺⁸⁾	Cornelius Krellner (B4)	<i>Single crystal growth of tunable quantum spin systems</i>
14:40 ⁽¹²⁺⁸⁾	Martin Baumgarten (B5)	<i>Rational design with input from DFT calculations and preparation of coordination polymer-based quantum magnets</i>
15:00 ⁽¹⁰⁾	Break	

15:10 (60)	Poster Flash Presentations
16:10 (30)	Coffee Break

16:40 (90)	Mentoring (1) & Posters
18:10 (20)	Break / Treffen Steering Committee

18:30 (60)	Mitgliederversammlung (bis 19:30)
19:15 (60)	Dinner

20:15	Poster Session (bis 23:00)
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Friday, September 26, 2012

XX:XX – 09:00	Breakfast
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3. Magnon Gases	B. Hillebrands	
09:00 (12+8)	Oleksandr Serha (A7)	<i>Collective effects and instabilities of a magnon gas</i>
09:20 (12+8)	Peter Kopietz (A8)	<i>Interacting magnons and critical behavior of bosons</i>

4. Charge-Transfer Salts	M. Huth / G. Schönhense	
09:40 (12+8)	Michael Lang (B6)	<i>Collective phenomena in organic charge-transfer salts close to the Mott transition</i>
10:00 (12+8)	Gerd Schönhense (B8)	<i>High-resolution photoelectron momentum microscopy of organic charge-transfer salts at variable temperature</i>
10:20 (20)	Coffee Break	
10:40 (12+8)	Michael Huth (B9)	<i>Tuning and monitoring the ferroelectric state in thin film organic charge transfer systems</i>
11:00 (12+8)	Jens Müller (B11)	<i>Low-frequency electron dynamics of organic charge-transfer salts studied by fluctuation spectroscopy</i>

11:20 (12+8)	Hans-Joachim Elmers (B12)	<i>Investigation of electron correlation in organic charge-transfer salts using scanning tunneling spectroscopy</i>
11:40 (5)	Michael Lang	<i>Concluding remarks</i>
11:45 (60)	Lunch	

12:45 (45)	Mentoring (2)	
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