

**2nd International Symposium of the SFB/TR 49 on
 "Novel states in correlated condensed matter – from model systems to
 real materials",
 KTC Königstein, April 8 – 10, 2014**

Programme

Tuesday, April 8, 2014

1. Session	Ultracold Quantum Gases (1)	(M. Fleischhauer)
08:55 (5)	Michael Lang	<i>Welcome</i>
09:00 (25+5)	Jean Dalibard	<i>A 2D Bose gas in a flat box</i>
09:30 (25+5)	Tilman Pfau	<i>Coupling a single electron to a Bose-Einstein condensate</i>
10:00 (25+5)	Luis Santos	<i>Ultra-cold lattice gases with density-dependent hopping</i>
10:30 (30)	Coffee Break	

2. Session	Correlated π-Electron Systems	(J. Müller)
11:00 (25+5)	Kazushi Kanoda	<i>Quantum criticality of Mott transition in 2D organics</i>
11:30 (25+5)	Martin Dressel	<i>Pressure dependent optical properties of correlated π-electron systems</i>
12:00 (25+5)	Jochen Wosnitza	<i>Emerging evidence for FFLO states in layered organic superconductors</i>
12:30 (25+5)	Takahiko Sasaki	<i>Mott-Anderson transition in strongly correlated π-electron systems</i>
13:00 (60)	Lunch	

3. Session	Frustrated Systems	(S. Eggert)
14:00 (25+5)	Oleg Starykh	<i>Unusual ordered phases of magnetized frustrated antiferromagnets</i>
14:30 (25+5)	Chisa Hotta	<i>Discovering magnetization plateaus in a spin-$\frac{1}{2}$ kagome antiferromagnet</i>
15:00 (25+5)	Frank Pollmann	<i>Stability of quantum ice</i>

15:30 (30)	Coffee Break
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4. Session	Magnetic Materials	(R. Valentí)
16:00 (25+5)	Stephen Blundell	<i>Using molecular bricks to build novel states in condensed matter</i>
16:30 (25+5)	John Schlueter	<i>Understanding and controlling magnetic exchange in fluoride-based coordination polymers</i>
17:00 (25+5)	Silke Biermann	<i>Electronic structure calculations for correlated electron materials: A case for including long-range Coulomb interactions</i>
17:30 (90)	Break	

19:00 (60)	Dinner
20:00 (120)	Poster Session

Wednesday, April 9, 2014

5. Session	Spin Liquids	(C. Gros)
09:00 (25+5)	Bernd Büchner	<i>Spin gaps in doped $S = \frac{1}{2}$ antiferromagnetic Heisenberg chains</i>
09:30 (25+5)	Philippe Mendels	<i>Quantum Kagome spin liquids</i>
10:00 (25+5)	Reizo Kato	<i>Quantum spin liquid state and related electronic phases in $\text{Pd}(\text{dmit})_2$ salts</i>
10:30 (25+5)	Federico Becca	<i>Gapless spin liquids in frustrated antiferromagnets</i>
11:00 (30)	Coffee Break	

6. Session	Magnon Gases	(B. Hillebrands)
11:30 (25+5)	Rembert Duine	<i>Magnon Bose-Einstein condensation via spin-current injection</i>
12:00 (25+5)	Yaroslav Tserkovniak	<i>Dynamic phase diagram of the dc-pumped magnon condensates</i>

12:30 (60)	Lunch
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14:30 – 19:00	Social Programme
14:30	Departure from Königstein
15:30 – 17:00	Guided Tour in the Städel Museum
18:30	Departure from Frankfurt

19:45 (60)	Dinner
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Thursday, April 10, 2014

7. Session	Ultracold Quantum Gases (2)	(W. Hofstetter)
09:00 (25+5)	Tilman Esslinger	<i>Synthetic quantum many-body systems</i>
09:30 (25+5)	Wilhelm Zwerger	<i>Attractive Fermi gases at infinite coupling</i>
10:00 (25+5)	Klaus Sengstock	<i>Magnetism with and without magnetism: Different regimes of magnetic interactions in quantum gases</i>
10:30 (25+5)	Marcello Dalmonte	<i>The cold atom lattice gauge toolbox: string breaking and quantum ice</i>
11:00 (30)	Coffee Break	

8. Session	Novel Superconductors	(M. Lang)
11:30 (25+5)	Andrey Chubukov	<i>Charge order and pseudogap phase in hole-doped cuprates</i>
12:00 (25+5)	Ralph Claessen	<i>Doped organic semiconductors: superconductivity versus electronic correlations</i>
12:30 (25+5)	Peter Hirschfeld	<i>Interplay of disorder, nematicity and magnetism in Fe-based superconductors</i>
13:00 (25+5)	Masatoshi Imada	<i>Mechanism of superconductivity for iron-based superconductors</i>
13:30 (60)	Lunch	

time	Monday (7.4.)	Tuesday (8.4.)	Wednesday (9.4.)	Thursday (10.4.)
10:00		09:00 Ultracold Quantum Gases (1)	09:00 Spin Liquids	09:00 Ultracold Quantum Gases (2)
11:00		10:30 Coffee Break	11:00 Coffee Break	11:00 Coffee Break
12:00		11:00 Correlated π -Electron Systems	11:30 Magnon Gases	11:30 Novel Superconductors
13:00		13:00 Lunch	12:30 Lunch	13:30 Lunch
14:00		14:00 Frustrated Systems	13:30	13:30 Lunch
15:00		15:30 Coffee Break	14:30 Departure from Königstein	14:30
16:00		16:00 Magnetic Materials	15:30 Guided Tour in the Städel Museum	
17:00		17:30	Social Programme	
18:00			18:30 Departure from Frankfurt	
19:00	19:00 Registration and Welcome Evening	19:00 Dinner		
20:00		20:00 Poster Session	19:45 Dinner	
21:00			20:45	
22:00	22:00			