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	*Welcome*
09:00 (25+5)	Jean Dalibard	*A 2D Bose gas in a flat box*
09:30 (25+5)	Tilman Pfau	*Coupling a single electron to a Bose-Einstein condensate*
10:00 (25+5)	Luis Santos	*Ultra-cold lattice gases with density-dependent hopping*
10:30 (30)		**Coffee Break**

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

3. Session	Frustrated Systems	(S. Eggert)
14:00 (25+5)	Oleg Starykh	*Unusual ordered phases of magnetized frustrated antiferromagnets*
14:30 (25+5)	Chisa Hotta	*Discovering magnetization plateaus in a spin-½ kagome antiferromagnet*
15:00 (25+5)	Frank Pollmann	*Stability of quantum ice*

15:30 (30)		**Coffee Break**

4. Session	**Magnetic Materials**	**(R. Valentí)**
16:00 (25+5)	Stephen Blundell	*Using molecular bricks to build novel states in condensed matter*
16:30 (25+5)	John Schlueter	*Understanding and controlling magnetic exchange in fluoride-based coordination polymers*
17:00 (25+5)	Silke Biermann	*Electronic structure calculations for correlated electron materials: A case for including long-range Coulomb interactions*
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	*Spin gaps in doped S = ½ anitferromagnetic Heisenberg chains*
09:30 (25+5)	Philippe Mendels	*Quantum Kagome spin liquids*
10:00 (25+5)	Reizo Kato	*Quantum spin liquid state and related electronic phases in Pd(dmit)$_2$ salts*
10:30 (25+5)	Federico Becca	*Gapless spin liquids in frustrated antiferromagnets*
11:00 (30)		**Coffee Break**

6. Session	**Magnon Gases**	**(B. Hillebrands)**
11:30 (25+5)	Rembert Duine	*Magnon Bose-Einstein condensation via spin-current injection*
12:00 (25+5)	Yaroslav Tserkovniak	*Dynamic phase diagram of the dc-pumped magnon condensates*
12:30 (60)		**Lunch**

14:30 – 19:15	**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**

Thursday, April 10, 2014

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

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

time	Monday (7.4.)	Tuesday (8.4.)	Wednesday (9.4.)	Thursday (10.4.)
10:00		08:55 Ultracold Quantum Gases (1) 10:30	09:00 Spin Liquids 11:00	09:00 Ultracold Quantum Gases (2) 11:00
11:00		Coffee Break	Coffee Break	Coffee Break
12:00		11:00 Correlated π-Electron Systems 13:00	11:30 Magnon Gases 12:30	11:30 Novel Superconductors 13:30
13:00		13:00 Lunch 14:00	12:30 Lunch 13:30	13:30 Lunch 14:30
14:00		14:00 Frustrated Systems 15:30		
15:00			14:30 Departure from Königstein	
16:00		Coffee Break	15:30 Guided Tour in the Städel Museum	
17:00		16:00 Magnetic Materials 17:30	Social Programme	
18:00			18:30 Departure from Frankfurt	
19:00	19:00 Registration and Welcome Evening 22:00	19:00 Dinner 20:00		
20:00		20:00 Poster Session 22:00	19:45 Dinner 20:45	
21:00				
22:00				