SFB/Transregio 21

Workshop 2014

CO.CO.MAT
Common perspectives of mesoscopic systems and quantum gases

October, 5th – 8th, 2014
Schloss Reisensburg, Günzburg

Arrival:	**Sunday, October 5th (evening)**
Departure (non SFB):	**Wednesday, October 8th (after lunch)**
Departure (SFB):	**Wednesday, October 8th (afternoon, after coffee break)**

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Program Schedule

Monday, October 6th, 2014

07:30 – 08:30	Breakfast	
08:30 – 09:30	Weibo Gao (ETH Zürich, Switzerland) *"Spin photonics with single quantum dot"*	
09:30 – 10:00	Coffee break	
10:00 – 10:30	Fabian Hargart (Universität Stuttgart) *"Coupled microdisks and site-controlled quantum dots"*	SFB C3
10:30 – 11:00	Hannes Gorniaczyk (Universität Stuttgart) *"Single-Photon Transistor Mediated by Interstate Rydberg Interactions"*	SFB C12
11:00 – 11:30	Thomas Maier (Universität Stuttgart) *"Bose Einstein condensation of Dysprosium"*	SFB A2
11:30 – 12:00	Artjom Krükow (Universität Ulm) *"Three body collision of a single Ba^+ ion with Rb atoms"*	SFB A8
12:00 – 14:00	Lunch	
14:00 – 14:30	Stephan Dürr (Max-Planck-Institut für Quantenoptik, Garching) *"Single-Photon Transistor Based on Rydberg Blockade"*	
14:30 – 15:00	Gerhard Birkl (TU Darmstadt) *"Single-Site Addressable Architecture for Quantum Information and Quantum Simulation with more than 100 Qubits"*	
15:00 – 15:30	Hans Peter Büchler (Universität Stuttgart) *"Scattering resonances and bound states for strongly interacting Rydberg polaritons"*	SFB B6
15:30 – 16:00	David Peter (Universität Stuttgart) *"Topological bandstructures with polar molecules and Rydberg atoms"*	SFB B8
16:00 – 16:30	Coffee break	
16:30 – 18:00	Poster session	
18:00 – 20:00	Dinner	
20:00 – 21:00	Dietmar Fröhlich (TU Dortmund) *"Rydberg excitons in Cu_2O meet Rydberg atoms"*	

Tuesday, October 7th, 2014

07:30 – 08:30	Breakfast	
08:30 – 09:00	Christophe Galland (EPFL Lausanne, Switzerland) *"Molecular Cavity Optomechanics: shining new light on plasmon-Enhanced Raman scattering"*	
09:00 – 09:30	Tara Liebisch (Universität Stuttgart) *"A single Rydberg atom used as a non-destructive high-density gauge"*	SFB B10
09:30 – 10:00	Coffee break	
10:00 – 10:30	Maxim Efremov (Universität Ulm) *"Few-body physics induced by p-wave resonance"*	
10:30 – 11:00	Sabine Andergassen (Universität Tübingen) *"Quantum correlations in non-equilibrium transport through Kondo quantum dots"*	
11:00 – 11:30	Alexander Kubanek (Universität Ulm) *"Optical properties of single quantum emitter in Diamond"*	
11:30 – 12:00	Thomas Paintner (Universität Ulm) *"Measurement of T* at the BEC-BCS crossover"*	SFB B4
12:00 – 14:00	Lunch	
14:00 – 14:30	Thorsten Schumm (Vienna University of Technology, Austria) *"Thorium nuclear clock"*	
14:30 – 15:00	Ya Wang (Universität Stuttgart) *"Quantum Chemistry Simulation of the Helium Hydride Molecule"*	SFB C4
15:00 – 15:30	Andreas Günther (Universität Tübingen) *"Noise spectroscopy with quantum gases"*	SFB C9
15:30 – 16:00	Martin Plenio (Universität Ulm) *"Diamond surfaces for Simulation and Sensing"*	SFB B11
16:00 – 16:30	Coffee break	
16:30 – 18:00	Poster session	
18:00 – 20:00	Dinner	
20:00 – 21:00	Randall Hulet (Rice University, Houston, Texas, USA) *"Observation of Antiferromagnetic Correlations in the Hubbard Model"*	

Wednesday, October 8th, 2014

07:30 – 08:30	Breakfast	
08:30 – 09:30	Jukka Pekola (Aalto University School of Science, Helsinki, Finland) *"Maxwell's demon and calorimetric measurement of dissipation in a quantum circuit"*	
09:30 – 10:00	Coffee break	
10:00 – 10:10	Christos Bokas (Universität Ulm) *"Dynamics of the dissipative Dicke model: superradiance of cold atoms via a superconducting cavity" (theory)*	SFB C2
10:10 – 10:20	Daniel Bothner (Universität Tübingen) *"Coplanar waveguide resonators for superconductor/cold atom hybrid devices" (exp.)*	SFB C2
10:20 – 10:30	Lörinc Sarkany (Universität Tübingen) *"Control of the magnetic field sensitivity of atomic clock states" (exp.)*	SFB C2
10:30 – 10:45	Rosina Menditto (Universität Tübingen) *"Tunable ϕ-Josephson junctions" (exp.)*	SFB A5
10:45 – 11:00	Matthias Zimmermann (Universität Ulm) *"Tunable energy barriers in 0-κ Josephson junctions" (theory)*	SFB A5
11:00 – 11:30	Ressa Said (Universität Ulm) *"Quantum Optimal Control of NV Centers"*	SFB A7
11:30 – 12:00	Chris Schröder (Universität Ulm) *"Enhancing photosynthetic efficiency by quantum delocalization"*	SFB C11
12:00 – 14:00	Lunch	
14:00 – 15:00	Meeting of PI's (only for SFB members)	
15:00 – 15:30	Coffee break	

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CONTROL OF QUANTUM CORRELATIONS IN TAILORED MATTER
SFB/TRR 21 – STUTTGART, ULM, TÜBINGEN

8th Workshop 2014, Schloss Reisensburg, Günzburg
- Overview -

Arrival (all): Sunday, 5.10.2014 (evening, get-together)
Departure (non SFB): Wednesday, 8.10.2014 (after talks)
Departure (SFB): Wednesday, 8.10.2014 (afternoon, after coffee break)

Schedule	Monday, 06.10.2014		Tuesday, 07.10.2014		Wednesday, 08.10.2014	
07:30 – 08:30	*Breakfast*					
08:30 – 09:30	W. Gao (ETH Zürich, Switzerland)		C. Galland (EPFL Lausanne, Switzerland)	*B10*	J. Pekola (Aalto University School of Science, Helsinki, Finland)	
09:30 – 10:00	*Coffee break*					
10:00 – 11:00	*C3*	*C12*	M. Efremov (Universität Ulm)	S. Andergassen (Universität Tübingen)	*C2 (theory/exp.)*	*A5 (theory/exp.)*
11:00 – 12:00	*A2*	*A8*	A. Kubanek (Universität Ulm)	*B4 (theory/exp.)*	*A7*	*C11*
12:00 – 14:00	*Lunch*					
14:00 – 15:00	S. Dürr (MPI für Quantenoptik, Garching)	G. Birkl (TU Darmstadt)	T. Schumm (Vienna University of Technology, Austria)	*C4*	*Meeting of PI's* *(SFB intern)* *Coffee break: ca. 15:00 – 15:30*	
15:00 – 16:00	*B6*	*B8*	*C9*	*B11*		
16:00 – 16:30	*Coffee break*					
16:30 – 18:00	Poster		Poster			
18:00 – 20:00	*Dinner*					
20:00 – 21:00	D. Fröhlich (TU Dortmund)		R. Hulet (Rice University, Houston, Texas, USA)			

Update: 29.09.2014