

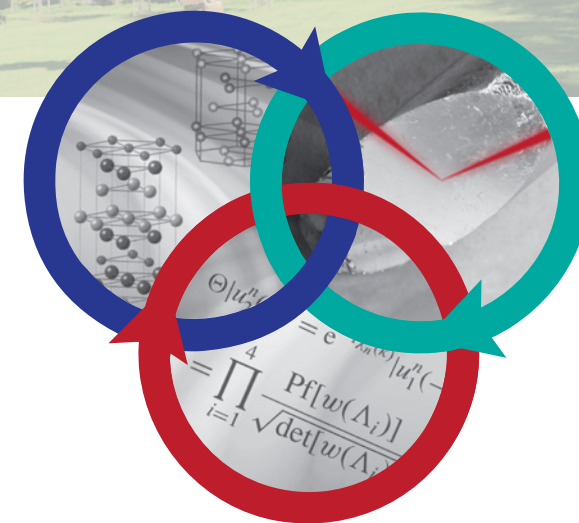
TITLE	PRESENTING AUTHOR
Topological superconductivity in $\text{Cu}_{1.5}(\text{PbSe})_5(\text{Bi}_2\text{Se}_3)_6$	Lionel Andersen
Topological mechanics from supersymmetry	Jan Attig
Time-dependent glassy relaxation in the compensated topological insulator BSTS2	Mahasweta Bagchi
Anisotropy of the upper critical field in superconducting $\text{In}_x\text{Sn}_{1-x}\text{Te}$	Mengmeng Bai
Competing orders and quantum criticality in itinerant electron systems	Carsten Bauer
The Kitaev model unHiggsed: A field-driven U(1) spin liquid in the honeycomb Kitaev model	Christoph Berke, Ciaran Hickey
Aging and hierarchical dynamics in dissipative quantum spin systems	Jean-Sébastien Bernier
Tunneling spectroscopy on MBE grown heterostructures	Andrea Bliesener
Toward STM studies of topological matter in transport geometry at low temperatures and high magnetic fields	Jens Brede
Magnetic structure of the triangular magnet $\text{Cs}_3\text{Fe}_2\text{Br}_9$	Daniel Brüning
Emergent transport in textured non-Abelian non-collinear antiferromagnets	Patrick Buhl
Competing magnetic orders and spin liquids in three-dimensional quantum magnets	Finn Lasse Büben, Dominik Kiese
Ab initio studies of two-dimensional (2D)-based hybrid interfaces	Vasile Caciuc, Nicolae Atodiresei
Narrow photoluminescence peak of epitaxial MoS_2 on graphene/Ir(111)	Niels Ehlen
Gauge frustration and bond-bond correlations in Kitaev spin liquids	Tim Eschmann, Kevin O'Brien
Fabrication and transport study of topological insulator nanoribbons	Dingxun Fan, Matthias Röblier
Nanodevice experiments on superconductivity in topological-insulator materials	Junya Feng
New millikelvin STM system with vector magnetic field for spin dependent measurements	Jeison Fischer
Structural and Dynamic Investigation of Multiferroics	Tobias Fröhlich
Raman scattering of RuCl_3 in high magnetic fields	Raphael German, Thomas Koethe

TITLE	PRESENTING AUTHOR
Polarization dynamics in LiCuVO_4	Christoph Grams
Growth and structure of mono- to few-layer VS_2 on graphene on Ir(111)	Joshua Hall
Two New Phases in the Chiral Magnet Cu_2OSeO_3	Lukas Heinen
Spin dynamics and anomalous anisotropy gap in the metallic perovskite SrRuO_3	Kevin Jenni
Unravelling the fingerprints of the charge density wave in VSe_2 by scanning tunneling spectroscopy	Timo Knispel
Observation of the Higgs mode in the superfluid BCS-BEC crossover in Fermi gases	Johannes Kombe
THz quadrochromism in chiral Ni_3TeO_6 in magnetic field	Malte Langenbach, David Maluski
Transport spectroscopy of 3D Dirac materials	Henry Legg
MBE grown ultrathin films of a magnetically doped topological insulator	Gertjan Lippertz
$j=1/2$ on an fcc lattice: double perovskite $\text{Ba}_2\text{CeIrO}_6$	Chinchyi Loo, Alessandro Revelli
Growth and characterization of $\text{BiTe}_x\text{Se}_{1-x}$ topological-insulator nanowires	Felix Münnig
Giant microwave magneto-conductivity in the compensated topological insulator BiSbTeSe_2	Lea Pitz-Paal
RIXS on face-sharing and edge-sharing iridates	Alessandro Revelli
Spin Liquids and Functional RG in Momentum Space	Dietrich Roscher
Optically driven magnetization dynamics and coherent spin excitation in the cycloid and skyrmion-lattice phases of GaV_4S_8	Fumiya Sekiguchi
Fermion-induced quantum criticality with two length scales and emergent symmetries in Dirac systems	Emilio Torres
Spin-lattice relaxation in the spin cluster magnet Cu_2OSeO_3	Rolf Versteeg
Non-linear optical response of SrCuO_2	Philipp Warzanowski
Luttinger liquid in a box: spectral signature of spin-charge separation in Mo_2 mirror twin boundaries	Philipp Weiß
Competition between Kondo and Kitaev physics in a frustrated quantum impurity coupled to a metallic host	Tathagata Chowdhury

Control and Dynamics of Quantum Materials

Spin-orbit Coupling, Correlations, and Topology

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Sept. 10–12th, 2018
Kardinal-Schulte-Haus
Bensberg, Germany

crc1238.uni-koeln.de/conference

MONDAY Sept.10

- 8:00 **Breakfast**
- 9:20 **Welcome**
- 9:30 **Yoshinori Tokura**
Topological phase transitions in magnetic topological insulators
- 10:00 **Leon Balents**
Topological aspects of flat bands in twisted bilayer graphene
- 10:30 **Coffee**
- 11:00 **Yuichi Kasahara**
Half-integer thermal quantum Hall effect in a Kitaev spin liquid: A signature of chiral Majorana edge current
- 11:30 **Lucile Savary**
Surprising transport signatures in magnets
- 12:00 **Yuval Winkler**
Approximately quantized thermal Hall effect of chiral liquids coupled to phonons
- 12:30 **Lunch break**
- 14:30 **Jeroen van den Brink**
RIXS on iridates and cuprates
- 15:00 **Markus Grüninger**
RIXS on face-sharing and edge-sharing iridates
- 15:30 **Coffee**
- 16:00 **Roser Valenti**
Field- and Pressure-induced phases in generalized Kitaev models and materials
- 16:30 **Johannes Knolle**
Dynamics of Kitaev Spin Liquids
- 17:00 **Ciaran Hickey**
Field-Driven U(1) Quantum Spin Liquid in Kitaev Systems
- 17:30 **Break**
- 18:00 **Dinner**
- 19.30 **Postersession**

TUESDAY Sept.11

- 8:00 **Breakfast**
- 9:00 **Yong-Baek Kim**
Emergent phenomena in a quantum spin liquid with spin-orbit coupling
- 9:30 **Philipp Gegenwart**
Low-energy excitations in the triangular anti ferromagnet YbMgGaO₄
- 10:00 **Jun Zhao**
Spin correlations in rare-earth triangular lattice antiferromagnets
- 10:30 **Coffee**
- 11:00 **Satoru Nakatsuji**
Giant anomalous electrical responses and their control in Weyl Antiferromagnets
- 11:30 **Thomas Lorenz**
Magnetic-field induced quantum phase transitions in spin-1/2 XXZ chain materials
- 12:00 **Oliver Breunig**
Charge Puddles in Topological Insulators
- 12:30 **Lunch break**
- 14:30 **Alexander Brinkman**
4πi-periodic Andreev bound states in a Dirac semimetal
- 15:00 **Maria Daghofer**
Excitations of excitonic quantum magnets
- 15:30 **Coffee**
- 16:00 **Clifford Murray**
Tomonaga-Luttinger liquid in a box: electrons confined within MoS₂ mirror twin boundaries
- 16:30 **Nicolae Atodiresei**
Hybrid Interfaces: Structural and Electronic Properties
- 17:00 **Boris Senkovskiy**
Boron-doped graphene nanoribbons: electronic structure and Raman fingerprint
- 17:30 **End sessions**
- 18:00 **Biergarten**

WEDNESDAY Sept.12

- 8:00 **Breakfast**
- 9:00 **Christian Pfleiderer**
Experimental studies of quantum materials far from equilibrium
- 9:30 **Dennis Meier**
Domain walls as functional topological nano-elements
- 10:00 **Jan Müller**
Skyrmions and topological domain walls
- 10:30 **Coffee**
- 11:00 **István Kézsmárki**
Magnetoelectric effect of skyrmions
- 11:30 **Rolf Versteeg**
Spin-lattice relaxation in the spin cluster magnet Cu₂OSeO₃
- 12:00 **Maxim Mostovoy**
Electric excitation of topological magnetic defect
- 12:30 **Lunch break**
- 14:00 **Sang-Wook Cheong**
Topological vortex domains in quantum materials
- 14:30 **Ionela Lindfors Vrejoiu**
Magnetic order and magneto-transport in SrRuO₃-based epitaxial heterostructures
- 15:00 **Coffee**
- 15:30 **Yoshiteru Maeno**
Non-equilibrium steady state (NESS): a new approach to control Mott insulators
- 16:00 **Yoichi Ando**
Quest for Topological Superconductivity
- 16:30 **Conclusion**
- 17:00 **Good Bye**