

International Workshop "Quantum Dynamics, Transport, and Exotic Orders: Strolling among Spins and Strong Correlations"

On the occasion of Wolfram Brenig's 60th birthday

Program

Day 1, 28. 3. 2019, IFW Dresden

- 13:40 – 13:45 **Introduction**
- 13:45 – 14:15 **Bernd Büchner** (IFW Dresden, Germany)
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- 14:15 – 14:45 **Andreas Honecker** (Université de Cergy-Pontoise, France)
A journey of small and big spins
- 14:45 – 15:15 **Fabian Heidrich-Meisner** (University of Göttingen, Germany)
Finite-temperature transport in low-dimensional spin chains: On frustration, ideal conductors and phonons
- 15:15 – 16:00 Coffee break
- 16:00 – 16:30 **Robin Steinigeweg** (University of Osnabrück, Germany)
Combining dynamical quantum typicality and numerical linked cluster expansions
- 16:30 – 17:00 **Christian Hess** (IFW Dresden, Germany)
Heat transport of the Kitaev candidate system α -RuCl₃
- 17:00 ~ 18:00 **Get together**

Day 2, 29. 3. 2019, IFW Dresden

- 9:00 – 9:30 **Peter Fulde** (Max Planck Institute for the Physics of Complex Systems, Germany)
Wavefunctions for Macroscopic Electron Systems
- 9:30 – 10:00 **Natalia Perkins** (University of Minnesota, US)
Observing spin fractionalization in the Kitaev spin liquid
- 10:00 – 10:30 **Sasha Chernyshev** (University of California Irvine, US)
Texture of an impurity, heat of a drag, and non-commutative algebra
- 10:30 – 11:00 Coffee break
- 11:00 – 11:30 **Marcelo Arlego** (Universidad Nacional de La Plata, Argentina)
Low-dimensional frustrated magnetism: tubes and bilayer spin models
- 11:30 – 12:00 **Hans-Henning Klauss** (TU Dresden, Germany)
From Sr₂RuO₄ to Iron Pnictides – Time Reversal Symmetry Breaking Superconductivity in Multiband Systems
- 12:00 – 12:30 **Matthias Vojta** (TU Dresden)
Exotic Landau levels: From Majorana fermions to supersymmetry
- 12:30 – 14:00 Lunch break
- 14:00 – 14:30 **Reinhard Kremer** (Max Planck Institute for Solid State Research, Germany)
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- 14:30 – 15:00 **Roser Valentí** (Frankfurt University, Germany)
Kitaev models and materials: Quo vadis?
- 15:00 – 15:30 **Ilya Eremin** (Bochum University, Germany)
Interaction of vortices and skyrmions in superconducting/ferromagnetic heterostructures
- 15:30 **Closing Remarks**

<https://www.ifw-dresden.de/news-events/scientific-events/quantumdynamics-2019/>