

Program

Sunday, June 3, 2018

17:00 – 21:00 Registration

from 18:30 BUFFET SUPPER / Informal get together

Monday, June 4, 2018

08:00 BREAKFAST

CHAIR: Maria-Roser Valentí

08:50 – 09:00 Scientific organizers **Opening and welcome**

09:00 – 09:45 Frank Pollmann **Efficient simulation of the dynamics in frustrated spin systems**

09:45 – 10:30 Frédéric Mila **Generalization of the Haldane conjecture to SU(3)**

10:30 – 11:00 COFFEE BREAK

11:00 – 11:45 Andreas Läuchli **Computational quantum field theory approaches to quantum magnetism**

11:45 – 12:30 Philippe Mendels **Quantum kagome spin liquids:
A local view**

12:30 **Conference Photo** (in the foyer of the lecture hall)

12:40 LUNCH

Program

Monday, June 4, 2018

CHAIR: Arnaud Ralko

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| 14:30 – 15:15 | Radu Coldea | Spin dynamics of frustrated quantum pyrochlore magnets |
| 15:15 – 15:45 | Yasir Iqbal | Quantum and classical phases of the pyrochlore Heisenberg model with competing interactions |
| 15:45 – 16:15 | Sasha Chernyshev | Topography and mimicry of spin liquids on a triangular lattice |
| 16:15 – 16:45 | COFFEE BREAK | |

CHAIR: Jürgen Schnack

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| 16:45 – 17:30 | Christian Rüegg | New phases and quantum criticality in spin- and spin-orbital singlet systems |
| 17:30 – 18:00 | Ornella Vaccarelli | Exotic phenomena in the new frustrated spin ladder $\text{Li}_2\text{O}(\text{CuSO}_4)_2$ |
| 18:00 – 18:30 | Toshihiro Sato | Quantum Monte Carlo simulation of frustrated Kondo lattice models |
| 19:00 | DINNER | |

Program

Tuesday, June 5, 2018

08:00 BREAKFAST

CHAIR: Johannes Richter

09:00 – 09:45 Natalia Perkins **Evolution of intertwined orders in the Kitaev magnet β -Li₂IrO₃**

09:45 – 10:30 Stephen Winter **Consequences of anisotropic magnetism in α -RuCl₃**

10:30 – 11:00 COFFEE BREAK

11:00 – 11:45 Christian Hess **Heat transport of the putative Kitaev quantum spin liquid α -RuCl₃**

11:45 – 12:30 Yukitoshi Motome **Majorana fermions in Kitaev spin liquids**

12:30 LUNCH

CHAIR: Andreas Honecker

14:30 – 15:15 Hidenori Takagi **Spin-orbital entangled quantum liquid in H₃LiIr₂O₆**

15:15 – 16:00 Roderich Moessner **Dynamics of two-dimensional quantum magnets**

16:00 – 16:30 **Poster flash presentations I**

16:30 – 18:30 **Poster session I and COFFEE**

19:00 DINNER

Program

Wednesday, June 6, 2018

08:00 BREAKFAST

CHAIR: Karlo Penc

09:00 – 09:45 Maria Daghofer **Impact of Hund's rule on orbital and spin-orbital excitations**

09:45 – 10:30 George Jackeli **Spin-orbital interplay in $j=3/2$ Mott insulators**

10:30 – 11:00 COFFEE BREAK

11:00 – 11:45 Bella Lake **Experimental investigation of two new quantum spin liquids**

11:45 – 12:30 Salvatore Manmana **Emergent structures in magnetic systems out-of-equilibrium**

12:30 LUNCH

CHAIR: Karol Szalowski

14:30 – 15:15 Stefan Wessel **Quantum Monte Carlo in the spin-dimer basis**

15:15 – 16:00 Frederico Becca **Dynamical structure factor of frustrated spin models: A variational Monte Carlo approach**

16:00 – 18:30 **Excursion** (leisurely hike in the vicinity)

19:00 HERAEUS DINNER at the Physikzentrum
(cold & warm buffet, free beverages)

Program

Thursday, June 7, 2018

08:00 *BREAKFAST*

CHAIR: Kai Phillip Schmidt

09:00 – 09:45 Masaki Oshikawa **Gauge invariance and stability of π -flux critical phases**

09:45 – 10:30 Didier Poilblanc **Approaching frustrated magnetism with tensor networks**

10:30 – 11:00 *COFFEE BREAK*

11:00 – 11:45 Martin Hohenadler **Antiferromagnet to valence-bond solid transition with Dirac fermions**

11:45 – 12:30 Chisa Hotta **Thermodynamic properties of quantum spin systems**

12:30 *LUNCH*

CHAIR: Gergely Szirmai

14:30 – 15:00 Natalia Chepiga **DMRG investigation of quantum dimer ladders**

15:00 – 15:30 Götz Uhrig **Electronic & nuclear spins in driven quantum dots: Paradigm for non-equilibrium states with induced coherence**

15:30 – 16:00 Jeffrey Rau **Pseudo-Goldstone gaps and order-by-quantum-disorder in frustrated magnets**

16:00 – 16:30 **Poster flash presentations II**

16:30 – 18:30 **Poster session II and COFFEE**

19:00 *DINNER*

Program

Friday, June 8, 2018

08:00 BREAKFAST

CHAIR: Oleg Derzhko

09:00 – 09:45 Andreas Klümper **Quantum impurity models as derivatives of the Hubbard model**

09:45 – 10:30 Laura Messio **High temperature expansions for magnetic systems with impurities under a magnetic field**

10:30 – 11:00 COFFEE BREAK

11:00 – 11:45 Corinna Kollath **Finite temperature spectral functions in quasi-one-dimensional magnets**

11:45 – 12:30 Stefan Süllo **Field induced phases in the low-dimensional frustrated quantum magnets linarite and atacamite**

12:30 – 12:45 Scientific organizers **Poster awards, summary and closing remarks**

12:45 LUNCH

End of the seminar and FAREWELL COFFEE / Departure

Please note that there will be **no** dinner at the Physikzentrum on Friday evening for participants leaving the next morning.