Monday, Aug 28, 2023

Transport, Chair: Oleg Starykh (Utah)

8:50am Lars Bildsten (KITP)  Welcome[Video][CC]
9:00am Leon Balents (KITP)  On transport and dynamical response in quantum magnets[Video][CC]
9:45am Hidenori Takagi (MPI-FKF)  Thermal transport in quantum magnets[Video][CC]
10:30am  Morning Break

11:00am Satoru Nakatsuji (U. Tokyo)  Anomalous transport and its electrical and strain manipulation in chiral Antiferromagnetic State[Video][CC]
11:45am Léo Mangeolle (ENS Lyon)  Phonon Thermal Hall Conductivity from Scattering with Collective Fluctuations[Slides][Video]
12:30pm  Lunch Break

Novel phenomena in 1D magnets, Chair: Urban Seifert (KITP)

2:00pm Lia Izabella Lovas (KITP)  Bound state formation in the excitation spectrum of quantum Ising chain CoNb2O6 in low transverse field[Slides][Video][CC]
2:45pm Alan Tennant (Tennessee)  Kardar Parisi Zhang Dynamics in the Heisenberg Chain[Slides][Video][CC]
3:30pm  Afternoon Break

4:00pm Elena Hassinger (MPI-CPFS)  Large magnetic heat transport and plateaux phases in spin-chain compound YbAlO3[Video][CC]
4:45pm Masaki Oshikawa (ISSP-Tokyo)  Spin dynamics near the field-induced gap-closing transition in 1D magnets[Video][CC]
5:30pm  SHUTTLE TO BWSCI

Tuesday, Aug 29, 2023

Triangular Lattice Systems, Chair: Lucile Savary (ENS Lyon)

9:00am Stanislav Nikitin (PSI)  Complete spectral response of the triangular lattice Heisenberg antiferromagnet[Video][CC]
9:45am Luis Manuel (IFIR)  Evidence of two-spinon bound states in the magnetic spectrum of Ba3CoSb2O9[Slides][Video][CC]
10:30am  Morning Break

11:00am Andrey Zhedulev (ETH, Zurich)  Plateaux, spin density waves and Zeeman ladder in a planar distorted triangular lattice magnet[Video][CC]
11:45am Martin Mourigal (Georgia Tech)  Magnon pairing, interactions, and decay in iodine-based triangular spin-orbit magnets[Slides][Video][CC]
12:30pm  Lunch Break

Driven magnets, chirality and dynamics, Chair: Léo Mangeolle (ENS Lyon)

2:00pm Achim Rosch (U Cologne)  Archimedean screws, time crystals and flying domain walls[Video][CC]
2:45pm Max Hirschberger (RIKEN)  Detecting spin chirality by the thermal Hall effect[Embargoed]
3:30pm  Afternoon Break
Wednesday, Aug 30, 2023

Probes of quantum magnets, Chair: Natalia Perkins (Minnesota)

9:00am Mengxing Ye (U Utah)  
*Ultrast Dynamics in Quantum Magnets*[Video][CC]

9:45am N. Peter Armitage (Johns Hopkins)  
*Bond direction interactions in cobalt based magnets*[Video][CC]

10:30am  
Morning Break

11:00am Natalia Drichko (Johns Hopkins)  
*Magnetism and bands topology in Nd2Ir2O7 probed by Raman scattering spectroscopy*[Video][CC]

11:45am Gábor Halász (Oak Ridge NL)  
*Thermal anyon interferometry in phonon-coupled Kitaev spin liquids*[Video][CC]

12:30pm  
Lunch Break

Dynamics of Fractionalized Excitations

2:00pm Tessa Cookmeyer (KITP)  
*Dynamic correlators for Kitaev materials: a mean-field approach*[Slides][Video][CC]

2:45pm Radu Coldea (Oxford)  
*Exploration of rare-earth candidate Kitaev quantum magnets*[Embargoed]

3:30pm  
Afternoon Break

4:00pm Simon Trebst (U Cologne)  
*Monitored Kitaev Spin Liquids*[Slides][Video][CC]

4:45pm Roser Valenti (Goethe-Universität Frankfurt)  
*Designing Ru-based quantum spin liquid candidates and beyond: microscopic modelling and experimental signatures*[Video][CC]

5:30pm  
RECEPTION

6:00pm  
SPECIAL EVENTS DINNER

8:00pm  
SHUTTLE TO BWSCI

Thursday, Aug 31, 2023

Frustration and Moiré Materials, Chair: Tessa Cookmeyer (KITP)

9:00am Kin Fai Mak (Cornell)  
*Tunable moire Kondo lattice physics*[Video]

9:45am Urban Seifert (KITP)  
*Moire-Mott insulators in transition metal dichalcogenides: Spin liquids and doping*[Video]

10:30am  
Morning Break

11:00am Sung Bin Lee (KAIST)  
*Exotic magnetism in quasicrystals*[Video][CC]

11:45am Itamar Kimchi (Georgia Tech)  
*Disorder and entanglement in quantum magnets*[Slides][Video][CC]

12:30pm  
Lunch Break

Frustration and Moiré Materials, Chair: Cristian Batista (Tennessee)

2:00pm Sasha Chernyshev (UCI)  
*J1-J2-J3, count with me: Nematic and other quantum phases in ferro-antiferromagnets*[Slides][Video][CC]
2:45pm Federico Becca (U Trieste)  
Frustrated heisenberg models, possibly treated with neural-network wave functions

3:30pm  
Afternoon Break

4:00pm Liang Fu (MIT)  
Magnetism, Topology and the Fractional Quantum Anomalous Hall Effect

4:45pm Andrey Chubukov (Minnesota)  
Spin and isospin magnetism in twisted and un-twisted bilayer graphene

5:30pm  
CONFERENCE END SHUTTLE TO BWSCI *Also available to SB Airport and SB Airbus, Goleta location. (See Registration Desk BEFORE THURSDAY to sign up.)