

Condensed Matter Theory Center 2017 FALL SYMPOSIUM



November 15-17
2205 John S. Toll Physics Building

November 15 (Wednesday)

Topological

- 9:00 AM Maissam Barkeshli "Single-shot modular transformations: transversal logic gates and measuring fractional statistics"
- 9:50 AM Yahya Alavirad "Edge state super current in the quantum hall regime"
- 10:40 AM Junhyun Lee "Chiral anomaly without Landau levels"

MBL and Entanglement

- 11:30 AM Tom Iadecola "Symmetry-protected macroscopic degeneracy in Floquet systems"
- 12:20-1:45 Lunch Break
- 1:50 PM Xiao Li "Observation of mobility edges in a one-dimensional bichromatic incommensurate potential"
- 2:40 PM Brian Swingle "Quantum dynamics with tensor networks"
- 3:30 PM Dong-Ling Deng "Measuring Quantum Entanglement Entropy through Restricted Boltzmann Machines"

November 16 (Thursday)

Magnetism

- 9:00 AM Mike Schechter "Thermal Ising Transitions in 2D Heisenberg Magnets"
- 9:50 AM Lance Boyer "A Model for Metastable Magnetism in the Hidden-Order Phase of URu₂Si₂"

Lattices

- 10:40 AM Danny Bulmash "Fractons and Gapped Boundaries"
- 11:30 AM Shenglong Xu "Interaction effects from the parity of N in SU(N) symmetric fermion lattice systems"
- 12:20-1:50 Lunch Break

November 17 (Friday)

Majorana

- 9:00 AM Jay Sau "Teleportation as a signature for Majorana bound states in the weak Coulomb blockade limit"
- 9:50 AM Ching-Kai Chiu "Conductance interference in a superconducting Coulomb blockaded Majorana ring"
- 10:40 AM Will Cole "1D spin-orbit coupled bosons: spin-momentum locking and the quantum critical point"
- 11:30 AM Chunxiao Liu "Andreev bound states versus Majorana bound states in quantum dot-nanowire-superconductor hybrid structures: trivial versus topological zero-bias conductance peaks"
- 12:20-1:45 Lunch Break
- 1:50 PM Yi-Ting Hsu "Topological superconductivity in monolayer transition metal dichalcogenides"

Spin Qubits

- 2:40 PM Robert Throckmorton "Fast pulse sequences for dynamically corrected gates in singlet-triplet qubits"
- 3:30 PM Yang Song "Spin-orbit coupling induced two-electron relaxation in silicon donor pairs"