

Condensed Matter Theory Center FALL SYMPOSIUM



When: Dates and times below
Where: 2205 Physics Building

Nov 5 (Wed) CMTC Symposium – Day 1

- 11:00 AM Pallab Goswami, *Axial anomaly and negative longitudinal magnetoresistance: theory vs. experiment*
- 11:45 AM Alejandro Lobos, *Magnetic edge-states in strongly interacting one-dimensional topological Kondo insulators*
- 1:30 PM Jed Pixley, *Unconventional Superconductivity near a Kondo Destroyed Quantum Critical Point*
- 2:15 PM Jimmy Williams, *Quantum Nanoelectronics in Oxides*
- 3:00 PM Vlad Manucharyan, *Single Cooper pair proximity effect in mesoscopic quantum dots*

Nov 7 (Fri) CMTC Symposium – Day 2

- 11:00 AM William Cole, *Magnetism and superfluidity of spin-orbit coupled bosons in one dimension*
- 11:45 AM Xiaopeng Li, *Chiral spin superfluidity and spontaneous spin Hall effect in optical lattices*
- 1:30 PM Stefan Natu, *What can we learn from far from equilibrium dynamics in interacting Bose gases?*
- 2:15 PM Juraj Radic, *Stoner ferromagnetism in a thermal pseudospin-1/2 Bose gas*
- 3:00 PM Setiawan, *Topological Phase Transition in Spin Orbit-Coupled Ultracold Fermi Gas*

Nov 12 (Wed) CMTC Symposium – Day 3

- 11:00 AM Sriram Ganeshan, *Quantizing quantum theory with constraints on a set of conjugate variables: A natural formalism for para-fermions*
- 11:45 AM Xin Liu, *Universal spin-triplet superconducting correlation of Majorana Fermions*
- 1:30 PM Diego Rainis, *How real is the Majorana? - Critical discussion of the currently available experimental evidence*
- 2:15 PM David Clarke, *Artificial anyons in Hybrid Superconductor/Quantum Hall devices*
- 3:00 PM Dong Liu, *Probing Majorana Physics in Quantum Dot Shot Noise Experiments*

Nov 14 (Fri) CMTC Symposium – Day 4

- 11:00 AM Philip Brydon, *Topological superconductivity from phonons?*
- 11:45 AM Hoi Yin Hui, *Majorana fermions in a ferromagnetic wire on the surface of a bulk spin-orbit coupled s-wave superconductor*
- 1:30 PM Yang-Le Wu, *Braiding non-Abelian quasiholes in fractional quantum Hall states*
- 2:15 PM Meng Cheng, *Majorana Zero Modes at the Edge of Integer Quantum Hall States*
- 3:00 PM Tudor Stanescu, *Topological Superconductivity in Proximity-Coupled Topological Insulator Nanoribbons*

Nov19 (Wed) CMTC Symposium – Day 5

- 11:00 AM Johannes Hofmann, *Electron interactions in Dirac materials*
- 11:45 AM Bitan Roy, *Theory of interacting surface states in cubic topological Kondo insulators*
- 1:30 PM Valentin Stanev, *Quasiclassical theory of p-wave nanowires*
- 2:15 PM Robert Throckmorton, *Quantum Multicriticality in Bilayer Graphene in the Presence of an Applied Electric Field*
- 3:00 PM Justin Wilson, *Repulsive Casimir effect between Weyl Semimetals*

Nov 21 (Fri) CMTC Symposium – Day 6

- 11:00 AM Maissam Barkeshli, *Coherent Transmutation of Electrons into Fractionalized Anyons*
- 11:45 AM Jay Sau, *Smoking gun detection of majorana modes through nonlocal "teleportation"*
- 1:30 PM Xin Wang, *Robust control of a spin qubit using noise-compensating pulses*
- 2:15 PM Jason Kestner, *Dynamical correction of two exchange-coupled spin qubits*
- 3:00 PM Edwin Barnes, *Robust quantum control using smooth pulses and topological winding*

(All are welcome to attend the talks.)

