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.)