Condensed Matter Theory Center
FALL SYMPOSIUM

Date: October 12-16, 2015
Time: 10:00-1:00
Place: 2205 Toll Physics Building

October 12 (Monday)  Dirac and Related Materials
10:00 AM  Jedediah Pixley  "The effects of disorder on Dirac and Weyl semi-metals"
10:45 AM  Mehdi Kargarian  "Surface states of Dirac semimetals"
11:30 AM  Robert Throckmorton  "Many-Body Effects and Ultraviolet Renormalization in 3D Dirac Materials"
12:15 PM  Hilary Hurst  "Charged Skyrmions on the Surface of a Topological Insulator"

October 13 (Tuesday)  Majorana and Topological Systems
10:00 AM  Ching-Kai Chiu  "Topological nodal lines"
10:45 AM  David Clarke  "Bell violations in Majorana wires"
11:30 AM  William Cole  "Effects of strong proximity coupling on semiconductor Majorana nanowires"
12:15 PM  Setiawan  "Conductance spectroscopy of topological superconductor wire junctions"

October 14 (Wednesday)  MBL, Interactions, and Correlations
10:00 AM  Dong-Ling Deng  "Exponential Orthogonality Catastrophe in Single-particle and Many-body Localized Systems"
10:45 AM  Xiaopeng Li  "Many-body Localization, Mobility Edge and a Non-Ergodic Metal Phase in a One Dimensional Incommensurate Lattice"
11:30 AM  Bitan Roy  "Phases and phase transitions in three dimensional parabolic semimetals: Application to 227 pyrochlore iridates"
12:15 PM  Juraj Radic  "Strong correlation effects in a two-dimensional Bose gas with quartic dispersion"

October 15 (Thursday)  Exotic Quantum Phases
10:00 AM  Yang-Le Wu  "Z4 parafermions in fractional quantum Hall bilayers"
10:45 AM  Xiao Li  "Quantum Hall effects in certain topological states of matter"
11:30 AM  Pallab Goswami  "HP^1 gauge theory of deconfined quantum criticality in (2+1) dimensions"
12:15 PM  Andrew Allocca  "Quantum interference phenomena in the Casimir effect"

October 16 (Friday)  Bosons, Fermions, Cuprates, and Silicon
10:00 AM  Stefan Natu  "Spin-1 spin orbit coupled bosons in an optical lattice"
10:45 AM  Yang Song  "New tunneling magnetoresistance and Silicon spin relaxation"
11:30 AM  Dmitry Efimkin  "Moving solitons in a one-dimensional fermionic superfluid"
12:15 PM  Zach Raines  "Enhancement of superconductivity via periodic modulation in a three-dimensional model of cuprates"