116th Statistical Mechanics Conference
Rutgers University, Busch Campus, Hill Center, Room 114
Sunday, December 18, 2016 - Tuesday, December 20, 2016
Honorees
John Cardy and Susan Coppersmith

**Sunday, December 18, 2016**

Registration and Breakfast 8:00 - 9:00

9:00 - 9:25  **Uwe Tauber** - Virginia Tech  
Non-equilibrium Relaxation and Aging Scaling in Driven Systems

9:25 - 9:50  **Bulbul Chakraborty** - Brandeis University  
Stress Transmission in Granular Solids: Beyond the q-Model?

9:50 - 10:15  **Bob Ecke** - Los Alamos National Laboratory  
Statistical physics of avalanche behavior in a sheared granular layer coupled to soft elastic plates

10:15 - 10:40  **Peter Littlewood** - University of Chicago  
The physics of jamming and the Mott transition in oxides

10:40 - 11:10  **Coffee Break**

11:10 - 11:35  **Ian Affleck** - UBC, Vancouver  
Phase Diagram of a Chain of Interacting Majorana Fermions

11:35 - 12:00  **Giuseppe Mussardo** - SISSA, Trieste  
The Coprime Quantum Chain

12:00 - 12:25  **Tom Spencer** - IAS  
Classical and quantum dynamics

**Lunch 12:25 - 2:00**

2:00 - 2:25  **Belita Koiller** - Physics Institute, Federal University of Rio de Janeiro  
Localization and Correlations in Atomically Thin Dopant Chans in Si

2:25 - 2:50  **Lou Bruch** - University of Wisconsin-Madison  
Melting of Monolayer Xenon

2:50 - 3:15  **Ravin Bhatt** - Princeton University  
Disorder Driven Fractional Quantum Hall Transitions

**Coffee Break 3:15- 3:45**

3:45 - 4:10  **Pupa Gilbert** - University of Wisconsin-Madison  
Nacre Formation Mechanisms

4:10 - 4:35  **Clare Yu** - University of California-Irvine  
Flux Noise in Superconducting Qubits

4:35 - 5:00  **Shobo Bhattacharya** - Tata Institute of Fundamental Research  
Granular Self-Organization by Auto-Tuning of Friction by Rolling and Sliding

5:00 - 5:25  **Onuttom Narayan** - University of California-Santa Cruz  
Slow Dynamics in Disordered Oscillator Chains

5:25 - 5:50  **Gyan Bhanot** - Rutgers University
Monday, December 19, 2016

Registration and Breakfast 7:45 - 8:30
8:30 - 9:45 Short Talks: Session A
Coffee Break 9:45 - 10:15
10:15 - 10:40 Jesper Jacobsen - Ecole Normale
Entanglement in Non-Unitary Quantum Critical Systems
10:40 - 11:05 Randall Kamien - University of Pennsylvania
Cholesteric Geometry
11:05 - 11:30 Eric Akkerman - Technion University
Observing a Scale Anomaly in Graphene: A Universal Quantum Phase Transition
11:30 - 11:55 David Grier - New York University
Light-Activated Self-Thermophoretic Swimmers and how they Navigate
11:55 - 12:25 Joel Lebowitz - Rutgers University
Human Rights and Responsibility of Scientists
Lunch 12:25 - 1:45
1:45 - 2:10 Bertrand Duplantier - Saclay
Liouville Quantum Multifractality
2:10 - 2:35 Mark Friesen - University of Wisconsin- Madison
Strongly Driven Quantum Systems: High Fidelity Gates in a Quantum Dot Hybrid Qubit
2:35 - 3:00 Robert Joynt - University of Wisconsin- Madison
Casimir and the Qubit: Decoherence from Evanescent- wave Johnson Noise
3:00 - 3:25 Nick Read - Yale University
Compactly-supported Wannier Functions and No-Go Theorems for Free-Fermion Tensor Network
Coffee Break 3:25 - 3:55
3:55 - 4:20 Andrew Millis - Columbia University
Nonequilibrium Physics of Correlated Electrons: Dynamically Driven Phase Control
4:20 - 4:45 Duncan Haldane - Princeton University
Quantum geometry and flux attachment in a Landau level.
4:45 - 5:10 Giuseppe Mussardo - Laudatio for John Cardy
5:10 - 5:35 Clare Yu - Laudatio for Susan Coppersmith

Tuesday, December 20, 2016

Registration and Breakfast 8:00 - 8:30
8:30 - 9:30 Short Talks: Session B
Coffee Break 9:30 - 10:00
10:00 - 10:25  David Campbell - Boston University
Graphene Kirigami: Fold, Spindle, and Mutilate
10:25 - 10:50  Sidney Nagel - University of Chicago
Exploiting Disorder for Global and Local Response
10:50 - 11:15  Andrea Liu - University of Pennsylvania
Emergent SO(3) sSymmetry at the Frictionless Shear-Jamming Transition
11:15 - 11:40  Alan Middleton - Syracuse University
Environment Wins Over Both Nature and Nurture in a Model Spin Glass
11:40 - 12:05  Benjamin Vollmayr-Lee - Bucknell University
Field Theoretic Description of Nonequilibrium Work Relations
12:05 - 12:30  John Barton - Massachusetts Institute of Technology
Statistical physics, inference, and the host-pathogen dynamics of HIV

Lunch 12:30 - 1:30
1:30- 1:55  Andreas Ludwig - University of California- Santa Barbara
Entanglement Spectra of Symmetry Protected Topological (SPT) Phases and Conformal Field Theory
1:55 - 2:20  Natan Andrei- Rutgers University
Quantum Impurity in Luttinger Liquid- Exact Solution of the Kane-Fisher Model and Beyond
2:20 - 2:45  Emil Yuzbashyan - Rutgers University
Non-Thermal Steady States in Long Time Quench Dynamics
2:45 - 3:10  Ramis Movassagh - Massachusetts Institute of Technology
Supercritical Violation of the Area Law for Entanglement Entropy in Quantum Spin Chains
3:10 - 3:35  Pedro Garrido - University of Granada
Unveiling Navier-Stokes equation properties from computer simulations