Princeton Center for Theoretical Science

The Princeton Center for Theoretical Science is dedicated to exploring the frontiers of theory in the natural sciences. Its purpose is to promote interaction among theorists and seed new directions in research, especially in areas cutting across traditional disciplinary boundaries.

The Center is home to a corps of Center Postdoctoral Fellows, chosen from nominations made by senior theoretical scientists around the world. A group of senior Faculty Fellows, chosen from science and engineering departments across the campus, are responsible for guiding the Center. Center activities include focused topical programs chosen from proposals by Princeton faculty across the natural sciences. The Center is located on the fourth floor of Jadwin Hall, in the heart of the campus "science neighborhood". The Center hopes to become the focus for innovation and cross-fertilization in theoretical natural science at Princeton.

Faculty Fellows
Paul Steinhardt, Director
Igor Klebanov, Associate Director
Adam Burrows
Curtis Callan
Garnet Chan
Pablo Debenedetti
David Huse
Jeroen Tromp

Center Postdoctoral Fellows
Ian Abel 2013-2016
Daniel Harlow 2012-2015
Yoav Kallus 2011-2014
Samuel Lee 2012-2015
Yi Li 2013-2016
David Limmer 2013-2016
Joseph Maciejko 2011-2014
Elisabetta Matsumoto 2011-2014
Rahul Nandkishore 2012-2015
Titus Neupert 2013-2016

To find out more about Center Postdoctoral Fellowships and Programs see:  
http://pcts.princeton.edu/pcts

Symmetry in Topological Phases

17-18 March 2014

Jadwin Hall, Fourth Floor
Room 407

Organizing Committee
Joseph Maciejko, PCTS, Princeton University
Rahul Nandkishore, PCTS, Princeton University
Titus Neupert, PCTS, Princeton University
Shivaji Sondhi, Princeton University
**Symmetry in Topological Phases**

**Monday, 17 March 2014**

9:25  Welcome and introductions

9:30-10:30  “Highly entangled quantum matter.”  
Xiao Gang Wen, Perimeter Institute

10:30-11:00  “TBA”  
Zheng-Cheng Gu, KITP, UCSB

11:00-11:30  Coffee Break

11:30-12:30  “A New Look At The Jones Polynomial Of A Knot”  
Edward Witten, IAS

12:30-2:00  Lunch at PCTS, Jadwin Hall, Fourth Floor

2:00-3:00  “Topological Insulators and Superconductors with Strong Interactions”  
Ashvin Vishwanath, Berkeley

3:00-3:30  “Symmetry protected topological phases and orbifolds/orientifolds”  
Shinsei Ryu, University of Illinois

3:30-4:00  Coffee Break

4:00-5:00  “Braiding statistics and symmetry-protected topological phases”  
Michael Levin, University of Chicago

**Tuesday, 18 March 2014**

9:00-10:00  “Interacting electronic topological insulators in three dimensions.”  
Senthil Todadri, MIT

10:00-10:30  “Topological lattice models and confinement in 3 dimensions”  
Fiona Burnell, University of Minnesota

10:30-11:00  Coffee Break

11:00-12:00  “Spin Fluctuations and Entanglement”  
Ari Turner, University of Amsterdam/Johns Hopkins

12:00-1:30  Lunch at PCTS, Jadwin Hall, Fourth Floor

1:30-2:00  “Time reversal topological order at the surface of a topological superconductor”  
Lukasz Fidkowski, SUNY Stony Brook

2:00-3:00  “Domains walls, categorified group actions, and condensing fermions”  
Kevin Walker, Microsoft Station Q