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
Ravindra Bhatt
William Bialek
Curtis Callan
Roberto Car
David Spergel
Salvatore Torquato

Center Postdoctoral Fellows:
Dmitry Abanin 2008-2011
Benjamin Basso 2009-2012
Adam Brown 2009-2012
Bryan Clark 2009-2012
Thomas Klose 2007-2010
Jean-Luc Lehners 2007-2010
M. Lisa Manning 2008-2011
Matthew Reece 2008-2011
Branson Stephens 2007-2010
Aleksandra Walczak 2007-2010

Center Associate Postdoctoral Fellows:
Jeremy England, Lewis-Sigler Institute for Integrative Genomics 2009-2010
Shravan Hanasoge, Geosciences, 2009-2010

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

Anti-de Sitter/Conformal Field Theory:
Nuclear and Many Body Physics

11-12 March 2010
Fourth Floor, Jadwin Hall

Program Organizers
Steven Gubser
Chris Herzog
Igor Klebanov
Thomas Klose
Amos Yarom
Thursday, 11 March 2010

9:20 – 9:30 am  Opening Remarks

9:30 – 10:30  "Jet Propagation in Matter"
  Peter Jacobs, Lawrence Berkeley National Laboratory

10:40 – 11:40  "The Chiral Magnetic Effect and local parity violation at RHIC"
  Dmitri Kharzeev, Brookhaven National Laboratory

11:40 – 1:00 pm  Lunch

1:00– 2:00  "Comparing kinetic theory and AdS/CFT"
  Derek Teaney, Stony Brook University

2:10 – 3:10 pm  "Polyakov Loops in Holographic QCD"
  Jorge Noronha, Columbia University

4:00 – 4:30  Tea, Room 218 Jadwin Hall

4:30 – 5:30  Physics Colloquium, Room A-10 Jadwin Hall
  "Quark Gluon Plasma: From Particles to Fields?"
  Barbara Jacak, Stony Brook University

Friday, 12 March 2010

9:30– 10:30 am  "Puzzles and Problems for Gravity and Glue"
  Robert Myers, Perimeter Institute

10:40 – 11:40  "Axial anomalies in hydrodynamics"
  Dam Son, University of Washington

11:40 – 1:00 pm  Lunch

1:00 – 2:00  "Quantum Phase Transitions of Metals in Two Spatial Dimensions"
  Subir Sachdev, Harvard University

2:10 – 3:10  "Quantum black holes and applied holography"
  Sean Hartnoll, Harvard University

3:10 – 4:00 pm  Coffee Break

4:00 – 5:00 pm  "From black holes to strange metals: many-body physics through a gravitational lens"
  Hong Liu, MIT