

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
Bogdan Andrei Bernevig 2006-2009
Thomas Klose 2007-2010
Jean-Luc Lehners 2007-2010
M. Lisa Manning 2008-2011
Meera Parish 2006-2009
Matthew Reece 2008-2011
Antonello Scardicchio 2006-2009
Branson Stephens 2007-2010
Aleksandra Walczak 2007-2010

To find out more about Center Postdoctoral Fellowships and Programs see:

<http://pcts.princeton.edu/pcts>



The Big Bang and Beyond Program

Microsymposium on Cyclic and Bouncing Universes

November 6-10, 2008

Organizers:

Nima Arkani-Hamed (IAS), Igor Klebanov, Jean-Luc Lehners,
David Spergel, Paul Steinhardt,
Matt Strassler (Rutgers), and Herman Verlinde

Co-sponsored by The D. E. Shaw Group

Cyclic and Bouncing Universes Micro Symposium

Thursday, November 6, 2008
PCTS

4:00 pm **Physics Tea in Room 218, Faculty Lounge,
Jadwin Hall**

8:00 pm Joint **Evnin Public Lecture/PCTS**
Room A-02, McDonnell Hall

“What Banged?”
Neil Turok, Perimeter Institute

Friday, November 7, 2008
PCTS

9:30 am Coffee

10:00 am Welcome

10:10 am “Cyclic Model: Progress and Challenges”
Neil Turok, Perimeter Institute

11:30 am “New models of bouncing cosmologies”
Robert Brandenberger, McGill University

12:50 – 2:15 pm **Lunch**

2:15 pm “Ekpyrotic Non-Gaussianity”
Justin Khoury, Perimeter Institute

3:35 pm **Coffee break**

3:50 “De-emergence of Space at a Big Crunch”
Thibault Damour, IHES

4:30 “The smoothing power of the ekpyrotic mechanism”
Frans Pretorius, Princeton University

Cyclic and Bouncing Universes Micro Symposium

Group Meetings
(Tentative Schedule)

Monday, November 10, 2008

2:00 pm
PCTS

2:00 “Bouncing and cyclic string gas cosmologies”
Dan Kabat, Columbia University

2:30 “Towards the Emergence of Cyclic Universes with Scale-Invariant
Fluctuations”
Tirthabir Biswas, Penn State University

3:00 **Coffee break**

3:15 “New Ekpyrotic Cosmology”
Burt Ovrut, University of Pennsylvania

3:45 “Cyclic Initial Conditions”
Jean-Luc Lehners, Princeton University

Check <http://pcts.princeton.edu/pcts/calendar.html>
for program updates and other Center activities