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 and is celebrating its tenth anniversary in 2016.

Faculty Fellows
Paul Steinhardt, Director
Igor Klebanov, Associate Director
Andrei Bernevig
Curtis Callan
Pablo Debenedetti
Eve Ostriker
Howard Stone
Herman Verlinde
Ned Wingreen

Center Postdoctoral Fellows
Barry Bradlyn 2015-2018
Jennifer Cano 2015-2018
Anna Frishman 2016-2019
Anna Iliyas 2014-2017
Bruno Le Floch 2015-2018
Daniel Lecoanet 2016-2019
Zhiyuan Li 2015-2108
Mark Mezei 2014-2017
Titus Neupert 2013-2016
David Pinner 2014-2017
Pierre Ronceray 2016-2019
Curt von Keyserlingk 2014-2017
Yaojun Zhang 2015-2018

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

“Journey to the Center of the Bulk”

20-22 October 2016
Jadwin Hall, Room 407

Workshop Organizers
Mark Mezei
Eric Perlmutter
Herman Verlinde

Live stream viewing of this workshop is available at:
http://www.kaltura.com/tiny/jxaqm
Journey to the Center of the Bulk

DAY 1: Thursday, October 20, 2016

9:00-9:30 Breakfast/welcome

9:30-10:30 A Cardy Formula for Three Point Coefficients: How the Black Hole Got its Spots
Alex Maloney, McGill University

10:30-11:10 Coffee Break

11:10-12:00 A Stereoscopic Look into the Bulk
Sam McCandlish, Stanford University

12:00-1:40 Lunch at PCTS, Jadwin Hall, Fourth Floor

1:40-2:30 Entanglement Holography
Jan de Boer, University of Amsterdam

2:30-3:30 Panel: “Bulk Reconstruction”
Vijay Balasubramanian, Bartek Czech, Thomas Faulkner, Daniel Jafferis, Xiaoliang Qi

4:00-5:00 pm Physics Colloquium- Jadwin Hall, Room A-10
Quantum Gravity and Quantum Chaos
Stephen Shenker, Stanford University

DAY 2: Friday, October 21, 2016

2:00-2:50 Exploring Black Hole Spacetimes with Boundary Conformal Blocks
Monica Guica, CEA Saclay

2:50-3:30 Coffee break

3:30-4:20 Causality, Shockwaves, and the Averaged Null Energy Condition
Thomas Hartman, Cornell University

Herman Verlinde, Jan de Boer, Thomas Hartman, Alex Maloney, Sasha Zhiboedov

DAY 3: Saturday, October 22, 2016

9:30-10:30 Bootstrapping Massive Higher Spins
Sasha Zhiboedov, Harvard University

10:30-11:00 Coffee Break

11:00-11:50 Horizon as critical phenomenon
Sung-Sik Lee, McMaster University/Perimeter Institute

11:50-12:40 Late times in SYK
Douglas Stanford, IAS

12:40-2:00 Lunch at PCTS, Jadwin Hall, Fourth Floor

2:00 - 2:50 Traversable Wormholes
Daniel Jafferis, Harvard University

2:50 Departure