



Bulk Microscopy from Holography and Quantum Information

22-23 November 2013
Jadwin Hall, Fourth Floor, Room 407

The AdS/CFT correspondence is often quoted as providing a complete theory of quantum gravity in asymptotically AdS space, but precise probes of the bulk have been limited so far. Can the dictionary be expanded to describe a more detailed set of bulk observables, in particular including those behind horizons? Recent work on black hole physics has emphasized the extent to which we do not have a satisfactory answer to this question. Attempts to understand this have begun to involve a variety of techniques from quantum information theory, in particular entanglement monogamy, error correction, and computational complexity.

REQUIRED REGISTRATION online
<http://pcts.princeton.edu/pcts/>

Workshop Organizers

Daniel Harlow, Herman Verlinde and Patrick Hayden (McGill University)

Speakers

Scott Aaronson, MIT
Tom Banks, UCSC
Raphael Bousso, LBL
Sam Braunstein, University of York
Steve Giddings, UCSB
Dan Kabat, Lehman College
Juan Maldacena, IAS
Samir Mathur, Ohio State University
Jonathan Oppenheim, University College
London

Joe Polchinski, UCSB
John Preskill, CalTech
Eva Silverstein, Stanford University
Douglas Stanford, Stanford University
Andy Strominger, Harvard University
Mark van Raamsdonk, University of British
Columbia
Erik Verlinde, ITP, University of Amsterdam