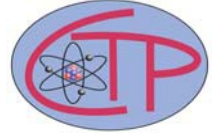




NEW YORK CITY COLLEGE OF TECHNOLOGY
Physics Department
Center for Theoretical Physics



Decoding the Hologram: Bulk Physics from the Boundary

Presented by:

Daniel Kabat

Lehman College CUNY

Thursday, November 14 at 11:45 am

Note that we are beginning 15 minutes earlier than usual

Namm, Room 823

Abstract

The AdS/CFT correspondence relates a theory of gravity (in D dimensions, with particular boundary conditions) to a quantum field theory that lives in $D-1$ dimensions. Gravitational physics is said to be "holographically encoded" on the boundary. I will discuss an approach to "decoding the hologram," that is, to recovering gravitational physics from the boundary theory. Causality plays a key role in the construction, as does the $1/N$ expansion. These features may have important implications for cosmology and black holes.