

Eternal traversable wormhole in two dimensions (Xiaoliang Qi, Stanford U)

Tuesday, 3 April 2018 10:00 (1 hour)

We study two Sachdev-Ye-Kitaev models with a relevant coupling, and show that a subsector of this theory is dual to a gravity in nearly AdS₂ geometry, with two causally connected boundaries. The coupling corresponds to matter with negative null energy in gravity theory. We study the ground state and finite temperature properties of this model. There is an interesting phase transition at finite temperature, similar to the Hawking-Page transition in higher dimensions, between a thermal AdS phase and a black hole phase.

Summary