We review the definition of spacetime wormholes and their interpretation by Coleman as describing an average over couplings. We describe the factorization paradox associated to wormholes in AdS/CFT.

Professor Douglas Stanford
(STANFORD UNIVERSITY, USA)

Tuesday 8 June 2021 at 4.00 pm.
Lecture 1: Spacetime wormholes and their baggage
We review the definition of spacetime wormholes and their interpretation by Coleman as describing an average over couplings. We describe the factorization paradox associated to wormholes in AdS/CFT.

Zoom link: https://zoom.us/j/93471184487?pwd=ZE5GQ29GZXC2UHAYSDkxZjJN6NEcxZ09

Friday 11 June 2021 at 4.00 pm.
Lecture 2: Putting wormholes to work
We examine cases where spacetime wormhole solutions exist and discuss their interpretation: the eternal traversable wormhole, the “double cone” and the spectral form factor, a connection to matrix integrals, and the Page curve.

Zoom link: https://zoom.us/j/97810064908?pwd=c3BpN3BZbsxU0FhMnJ2M3F6OTBUT09

Tuesday 15 June 2021 at 4.00 pm.
Lecture 3: Wormholes without averaging
We discuss an analog of wormholes in the SYK model and analyze what happens to them in a theory with fixed couplings, addressing in this context the factorization problem introduced in lecture 1.

Zoom link: TBA