

Online Workshop on Quantum Gravity, Holography and Quantum Information

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Comments on Euclidean wormholes and holography

Wednesday, 17 March 2021 17:30 (1 hour)

Euclidean wormholes comprise exotic types of gravitational solutions, that still challenge our physical intuition and understanding. In the first part of the talk, I will analyse asymptotically AdS wormhole solutions in the context of holography. From a bottom up perspective a study of correlation functions of local and non-local operators indicates the universal properties that any putative holographic dual should exhibit. The system is very weakly cross-coupled in the UV, and becomes strongly cross-coupled in the IR. In the second part, I will describe some concrete field theoretic setups which exhibit such a behaviour and comment on various issues arising in the alpha-parameter interpretation of the wormhole gas.

45' talk + 15' discussion

Presenter: BETZIOS, Panos