APCTP SEMINAR

Holographic Bulk reconstruction and correlation measures in mixed systems

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ZOOM Webinar

In this talk, first I introduce several approaches of bulk reconstruction in holography, including HKLL, tensor networks, modular Hamiltonian and modular flow and quantum error correction. I discuss the similarities and connections between these approaches in the setup of mixed states. Specially, I use parameters such as dissipation which is being modeled by the mass of graviton, and also the same sign charges of the two systems to find connections between these different methods. I also discuss the behavior of entanglement and complexity of purification (EoP/CoP) of mixed states in various models of charged and dissipative systems. These results would provide further connections between various models of bulk reconstruction especially in mixed systems. If time permits, I discuss the expected behavior of modular Hamiltonian in QCD, and also the behavior of dynamics of correlations and void formations and their connections with EoP and CoP.

■ ZOOM Webinar
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