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Entanglement of purification in the presence of axion fields

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Abstract

We study the entanglement of purification in a field theory with momentum relaxation using gauge/gravity duality. The dual geometry is an asymptotically AdS spacetime which is a solution to Einstein-Hilbert action coupled to axionic fields. Our study show that the critical separation for the transition of entanglement of purification decreases as we increase the dissipation parameter, hence the total correlation between the subsystems decreases.

Keywords: gauge/gravity duality, entanglement of purification, axionic fields

For full article, refer to the Persian section