

Entropy generation and decay of the cosmological constant in Liouville gravity

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We investigated quantum infrared dynamics in 2D Liouville gravity with a positive cosmological constant and a large central charge $c > 25$. Superhorizon fluctuations of the conformal mode of the metric dynamically screen the cosmological constant, and the dS entropy increases simultaneously. We can identify the dS entropy with the von Neumann entropy of the conformal zero mode. This quantum time evolution can also be described by a classical inflation theory.

Presenter: Dr HIROYUKI, Kitamoto

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