

# **Multipartite Entanglement in Black Hole Evaporation and Primordial Fluctuations**

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## **Abstract**

Quantum entanglement has limited shareability known as monogamy and this property is related to emergence of separable state of considering systems. In this talk, I will introduce two specific models which show emergence of separable state due to entanglement monogamy: a quantum circuit model of black hole evaporation and quantum fluctuation in de Sitter space. After general introduction of entanglement and monogamy, I will present detail of these models and discuss how the monogamous property of entanglement determines separability of the systems.

## **References:**

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- [3] S. Kukita and Y. Nambu, “Harvesting Large Scale Entanglement in de Sitter Space with Multiple Detectors”, *Entropy* 19 (2017) 44 9