

# Emergence of Quantum Information Capsules in Fast Scrambling

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## Abstract

Quantum many-body systems and fields play roles of memory storage devices. Resolution of the information loss problem in black hole evaporation requires deeper understanding about mechanism of the information storage. A variety of quantum information carriers are possible, including generalized partners (GP) and quantum information capsules (QIC). In this talk, I will briefly review GP and QIC, and show new QIC results about fast scrambling.

## References:

- [1] Masahiro Hotta and Koji Yamaguchi, arXiv:1905.XXXXX
- [2] J. Trevison, K. Yamaguchi, M. Hotta, arXiv:1807.03467.
- [3] J. Trevison, K. Yamaguchi, M. Hotta, arXiv: 1808.01764.