

# Thin shell wormhole associated with black holes and early universe

*Tuesday 12 November 2019 15:45 (1 hour)*

Using ideas of perturbation theories of brane cosmology, we first introduce a new method to judge the stabilities of a type of travelable wormholes, namely the thin-shell wormholes constructed by cutting-and-pasting two building-block spacetimes at arbitrary joining shell radius. Then, we will introduce some phenomenological aspects about the wormhole cosmology, especially focus on the scenario of thin-shell wormholes in inflating FLRW spacetimes.

**Presenter:** LI, Aichen