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## **Wormholes in 2d Horava-Lifshitz quantum gravity**

*Tuesday, 6 July 2021 09:30 (25 minutes)*

We quantize the two-dimensional projectable Horava-Lifshitz gravity with a bi-local as well as space-like wormhole interaction. The resulting quantum Hamiltonian coincides with the one obtained through summing over all genus in the string field theory for two-dimensional causal dynamical triangulations. This implies that our wormhole interaction can be interpreted as a splitting or joining interaction of one-dimensional universes or strings. This talk will be based on a collaborative research with Jan Ambjørn, Yoshiyasu Ito and Yuki Hiraga.

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