JOINT TUFTS/MIT COSMOLOGY SEMINAR

Unitarity in Expanding Cosmologies

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I will explore different aspects of unitarity in expanding cosmologies. First, I will argue that quantum mechanical time evolution in this setting is always isometric, in the sense of preserving inner products, but not necessarily unitary. Evidence for this hypothesis can be seen in several technically and conceptually distinct examples. I will also discuss models of emergent unitarity in low-dimensional quantum gravity and explain connections to recent work on wormholes and the factorization paradox in AdS/CFT.

Tuesday, April 12, 2022, 2:30 pm

Hybrid talk

In person at 574 Boston Ave, Room 202

Zoom link will be distributed to joint cosmology seminar mailing list. See https://cosmos.phy.tufts.edu/mailman/listinfo/cosmology-seminar to join.

Tufts University

Refreshments at 2:00 outside the building, at the corner of Harvard St. and Boston Ave.