# JOINT TUFTS/MIT COSMOLOGY SEMINAR

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# *On "Nothing"*


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Berkeley



This talk is about "nothing": the state of zero metric from which spacetime can appear, and to which spacetime can disappear. By studying generalizations of Witten's "bubble of nothing" in the context of perturbatively-stabilized compact extra dimensions, I will show that "nothing" should be understood as an infinitely negatively curved spacetime. Armed with this understanding, I will show that a proposed mechanism for the appearance of spacetime from nothing – the "quantum creation of a universe" of Hawking and Turok – does not work.


## Tuesday, October 2, 2012, 2:30 pm

## Cosman Seminar Room

## Center for Theoretical Physics

## Building 6C, Room 6C-442

## Massachusetts Institute of Technology

Refreshments at 2:00 in the same room