

# JOINT TUFTS/MIT COSMOLOGY SEMINAR

---

## *Massive and partially massless gravity*

**Kurt Hinterbichler**  
Case Western Reserve

I will review recent developments in the non-linear theory of massive gravitons, or spin-2 fields. On de Sitter space, there exists a special value for the mass of a graviton for which the linear theory propagates 4 rather than 5 degrees of freedom. If a fully non-linear version of the theory exists and can be coupled to known matter, it would have interesting properties and could solve the cosmological constant problem. I will describe evidence for and obstructions to the existence of such a theory, and the recent development of Vasiliev-like theories that include towers of massless and partially massless fields.

**Tuesday, April 25, 2017, 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