

# JOINT TUFTS/MIT COSMOLOGY SEMINAR

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## *Axion Inflation in Quantum Gravity*

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To understand quantum gravity constraints on large-field inflation, it has proved useful to study theories in which the inflaton is an axion. I will compare the two main frameworks for large-field axion inflation, monodromy and alignment, and describe their limitations. I will then describe the constraints that the Lattice Weak Gravity Conjecture (LWGC) imposes on axion alignment. By resummation of instanton lattice series, I will show that some effective theories of large-field axion inflation are excluded if the LWGC is true, while others remain unconstrained.

Tuesday, November 7, 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