

JOINT TUFTS/MIT COSMOLOGY SEMINAR

*Constraining dark matter with small
fluctuations: in the microwave, UV and
stellar streams*

Renee Hlozek:
NIL

I will present constraints on axion dark matter from CMB fluctuations on small scales, the clustering of matter and voids, the UV luminosity function as probed by HST, and present new investigations into how we can constrain dark matter using stellar streams. As we move to smaller scales, our need for modelling the astrophysics of these systems increases: I will discuss some open questions in this line of research. Included in the smorgasbord of results will be new maps and images from the Data Release 6 of the Atacama Cosmology Telescope (ACT) in both temperature and polarization, that also tell us about different models beyond the standard picture, including constraints on the initial fluctuations of inflation.

Tuesday, October 7, 2025, 2:30 pm

Cosman Seminar Room

Center for Theoretical Physics

Building 6C, Room 6C-442

Massachusetts Institute of Technology