

JOINT TUFTS/MIT COSMOLOGY SEMINAR

The Future of Cosmology

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One of the greatest challenges in cosmology is understanding the origin of the structure of the universe. The fossil radiation from the beginning of the universe, the cosmic microwave background, has provided a unique window for probing inflation and the initial conditions from which structure evolved. Large surveys of galaxies have provided complementary information that has enabled us to reach the era of precision cosmology, with parameter determination approaching percent level accuracy. But where do we go next? Future experiments are planned with the next generation of observatories that will increase this precision by at most an order of magnitude. However we need to do far better if there is to be a guaranteed science return that will definitively probe our cosmic origins. I shall argue that the ultimate goal for our future strategy must be astronomy from lunar-based telescopes, and I will provide several examples of what could be accomplished within the next two decades.

Tuesday, December 8, 2020, 2:30 pm

Zoom link will be distributed to joint cosmology seminar mailing list. If not subscribed see <https://cosmos.phy.tufts.edu/mailman/listinfo/cosmology-seminar>

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