

Cosmological constraints on fundamental physics

Monday, 14 June 2021 09:00 (40 minutes)

In this talk I will give an overview of cosmological constraints on fundamental physics. There are now such a wide variety of cosmological probes—including supernovae, gravitational waves, large scale structure, peculiar velocities, gravitational lensing, the cosmic microwave background, and more—that any new theory is constrained on many sides. At the same time some small tensions are arising between different cosmological probes, indicating new physics may be needed. It's an exciting time! We will discuss both some of the latest results, and also the important search for systematics in the data, which is needed before we draw conclusions about the need for new physics.

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