

Bootstrapping Cosmological Fluctuations - Lecture 2

Tuesday, 16 November 2021 15:00 (2 hours)

Reconstructing the physics of the very early universe from current observations is one of the most exciting challenges of theoretical cosmology. The main objects of interest in this context are correlation functions of perturbations on the spatial slice sitting at the end of inflation. In these lectures I will review a new approach—the “cosmological bootstrap”—that attempts to derive these correlators without making reference to the inflationary time evolution. The aim is to directly fix them at the boundary where they reside by using symmetries and elementary physical principles. This new point of view is helping us bridge the gap between theory and observations and is providing new insights into the physics of inflation and de Sitter space.

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