

Title: The Promise of String Cosmology

Abstract: String theory and cosmology are made for each other. Fundamental questions about the early universe call for an understanding of quantum gravity.

On the other hand, observational cosmology provides a promising window to probe high energy physics. In this talk, I will argue that an inflationary universe -- our current theoretical paradigm of the macroscopic world -- is incomplete on its own and requires a microscopic, high energy completion. I will describe some recent developments in constructing inflationary models from string theory, the observational signatures of these models, and how one may use data to uncover the details of the underlying string compactification.