

Mapping the landscape with cosmological data

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Abstract

It is natural to expect that during inflation there were more than one degrees of freedom at play, whose dynamics affect the CMB. The cosmological collider program aims at finding patterns in the CMB observables that are "smoking guns" for such additional fields. We will see that in fact, we can reconstruct a whole class of Lagrangians from CMB and LSS observations, probing the interactions of light fields during inflation, thus mapping the potential landscape.