

Abstract

We analyze the spectrum of density perturbations generated in models of the recently discovered "D-acceleration" mechanism of inflation. In this scenario, strong coupling quantum field theoretic effects sum to provide a DBI-like action for the inflaton. We show that the model has a strict lower bound on the non-Gaussianity of the CMBR power spectrum at an observable level, and is thus falsifiable. This in particular observationally distinguishes this mechanism from traditional slow roll inflation generated by weakly interacting scalar fields. The model also favors a large observable tensor component to the CMBR spectrum. based on hep-th/0404084.