

The observables of the perturbed universe, CMB anisotropy and large structures, depend on a set of cosmological parameters, as well as, the assumed nature of primordial perturbations. In particular, the shape of the primordial power spectrum (PPS) is, at best, a well motivated assumption, mostly from a specific inflationary scenario. It is known that the assumed functional form of the PPS in cosmological parameter estimation can affect the best fit parameters and their relative confidence limits. In the absence of a preferred model of inflation, this raises a concern that current cosmological parameters estimates are strongly prejudiced by the assumed form of PPS. Our results strongly motivate approaches toward simultaneous estimation of the cosmological parameters and the shape of the primordial spectrum from upcoming cosmological data. While in this talk we will show that WMAP data are consistent with the assumption of a featureless power-law primordial spectrum, features cannot be categorically ruled out by the data and it is equally important for theorists to keep an open mind towards early universe scenarios that produce features in the PPS.