

Inflationary Attractors, $f(R)$ -duals and the Power Spectrum

Monday 16 March 2015 17:00 (20 minutes)

Inflationary attractors predict the spectral index and tensor-to-scalar ratio to take specific values that are consistent with Planck. An example is the universal attractor for models with a generalised non-minimal coupling, leading to Starobinsky inflation. In this talk, I will demonstrate that it also predicts a specific relation between the amplitude of the power spectrum and the number of e-folds. The length and height of the inflationary plateau are related via the non-minimal coupling: in a wide variety of examples, the observed power normalisation leads to at least 55 flat e-foldings. Prior to this phase, the inflationary predictions vary and can account for the observational indications of power loss at large angular scales. Furthermore, I will investigate whether or not the $f(R)$ -duality of plateau like models survives once higher order corrections to the inflationary potential are considered. Based upon 1408.5905 and 1411.6010

Presenter: Mr BROY, Benedict (Deutsches Elektron-Synchrotron DESY)