



Contribution ID : 191

Type : Contributed talk

## Vilkovisky-DeWitt Effective Action Approach to Scalar-Curvature Inflation Theories

*Wednesday, 25 May 2016 18:10 (20)*

Recently, in arXiv:1603.03730, we developed a new, generalised version of the potential slow roll approximation for a class of theories, known as Scalar-Curvature theories, at the classical level. This formalism allowed us to demonstrate that cosmological observables, such as the tensor-to-scalar ratio, spectral indices and their runnings, remain invariant under frame transformations (conformal transformations and inflaton reparametrizations) to first order in the slow-roll approximation. While frame invariance of the observables has been shown at the classical level, the problem still remains after the inclusion of quantum corrections to the action. In this talk, I will outline how to extend the frame invariance of the action to the effective action, which includes the aforementioned corrections, through the use of the Vilkovisky-DeWitt formalism. I will explicitly demonstrate this invariance at the one-loop level, and sketch how this invariance may be obtained to all orders in perturbation theory.

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