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Seminar of the theory group of APC

Mardi 18 Septembre 2018, 14 :00
APC, 646 A - Mondrian
Domaines : hep-th

Titre : *Observational constraints on inflationary potentials within the quantum collapse framework*

Orateur : **Gabriel Leon (National University of La Plata, Argentina)**

Résumé : *The inflationary paradigm is the most successful model for the generation of primordial perturbations. These perturbations have a purely quantum origin, while the inhomogeneities and anisotropies observed today exhibit a classical behavior. The model called Continuous Spontaneous Localization (CSL) is a proposed mechanism to solve the measurement problem in quantum mechanics. In this presentation, we will analyze the theoretical predictions resulting from incorporating the CSL model into the inflationary Universe. In particular, the predictions for the scalar spectral index and the tensor-to-scalar ratio are different from the standard ones. Based on these predictions, we will show that the inflationary potentials allowed by recent observational data are different from the traditional approach.*