## SEMPARIS – Séminaires en région parisienne

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## Seminar of the theory group of APC

Mardi 23 Octobre 2018, 14 :00 APC, 646 A - Mondrian Domaines : hep-th

Titre : Bayesian measurements of inflation with additional fields

## Orateur : Robert Hardwick ( Portsmouth University )

Résumé : In this talk I will demonstrate how, by introducing additional scalar degrees of freedom, one can measure properties of the inflationary era which may be otherwise inaccessible. Using two explicit examples (the curvaton and a feebly interacting model of dark matter), which introduce new informative priors into the post- inflationary phenomenology, we are able to constrain either the total duration that inflation takes place or its energy scale independently of the tensor-to-scalar ratio. Measurements of this kind may prove crucial in advancing the study of inflation if the future observational data were to yield a limited amount of new information.