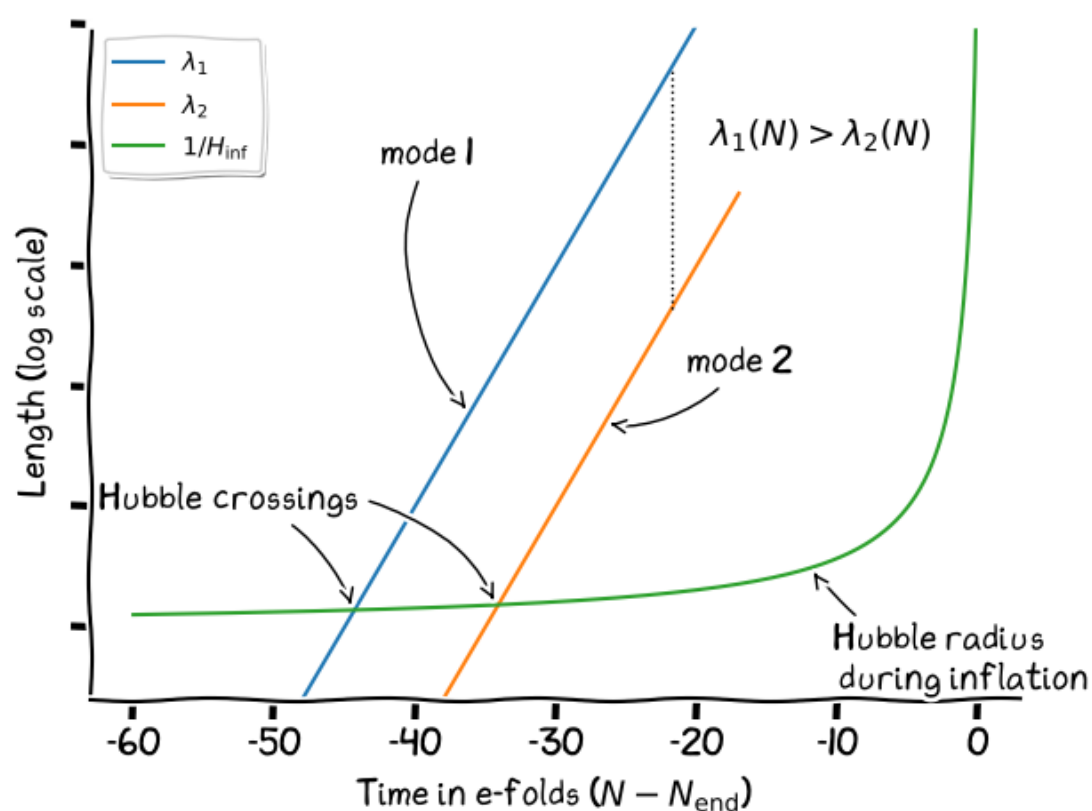




APC Colloquium  
Wednesday, April 16 at 11am  
Room Luc Valentin, 454A

Christophe Ringeval  
Université Catholique de Louvain



## Constraining Cosmic Inflation in Model Space

Cosmic Inflation, the currently favoured physical mechanism at the origin of structures in our universe, can be realised in many ways, ranging from modified gravity to string-theoretical constructions. However, up to now, its simplest incarnations, made of a scalar field slow-rolling a plateau-like potential, have passed all the observational tests. Will these models be confirmed by the upcoming Euclid and other large-scale structure surveys?

In this talk, we will present how to quantitatively answer this question using Bayesian statistics and explicit constructions of hundreds of single-field slow-roll models. Not only allowing for model comparison, these techniques can be used to extract global statistics, in model space, and their associated predictions end up being accurate and testable.