

Impact of non-linearities on Modified Gravity constraints

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In this talk I will present forecasted constraints on Modified Gravity using Galaxy Clustering and Weak Lensing. I will explore different possible phenomenological parametrizations for Modified Gravity models, encoding the effects of these modifications in two generic functions (η and μ) of time and space which affect the Poisson equation and the so-called gravitational slip. I will focus on forecasts for future surveys, like Euclid, SKA1, SKA2 and DESI and I will highlight the constraining power gained when including non linear scales in the analysis using phenomenological prescription for the modelling of these scales in the Modified Gravity framework.