

Bartolo: "Large Scale Structure in mimetic Horndeski gravity"

Wednesday, 27 September 2017 09:30 (35 minutes)

Within the so called mimetic gravity I will discuss cosmological perturbations for mimetic Horndeski models. I will focus on a proposal for a model of the dark universe, where both cold dark matter (CDM) and dark energy phenomena are described by a single component, the mimetic field. For the simpler minimal model it turns out that if the background expansion history is chosen to be identical to a perfect fluid dark energy (PFDE), then the mimetic model predicts the same power spectrum for the gravitational potentials as the PFDE. I will also discuss the distinguishability between these mimetic models and other popular models for DE. Finally I will present some preliminary results about the extraction of some parameters commonly used to quantify modifications w.r.t. to standard GR, like for example modifications of the Poisson equation.