

G. Lara: Matter coupling in k-essence and dynamics in UV completions (WP2)

Monday, June 5, 2023 4:30 PM (40 minutes)

In this talk, I will present a study of the qualitative features of stationary solutions with kinetic screening for different couplings to matter. As for the dynamics, I will illustrate with an explicit example how different “completions” of k-essence can allow for stable time evolutions with numerical relativity. The latter, despite the original theory appearing to be ill (which is a commonplace situation in many alternatives to GR). Finally, I close with comments on some challenges that remain for other types of completions and mention some new directions of research for other alternative theories of gravity.