



ID de Contribution: 6

Type: Non spécifié

Constraining decaying dark matter with the effective field theory of large-scale structures

mercredi 5 octobre 2022 17:30 (25 minutes)

In this talk, I will present the first constraints on decaying cold dark matter (DCDM) models thanks to the effective field theory of large scale structure (EFTofLSS) applied to BOSS-DR12 data. I will consider two phenomenological models of DCDM: i) a model where a fraction f_{dcdm} of cold dark matter (CDM) decays into dark radiation (DR) with a lifetime τ ; ii) a model (recently suggested as a potential resolution to the S_8 tension) where all the CDM decays with a lifetime τ into DR and a massive warm dark matter (WDM) particle, with a fraction ε of the CDM rest mass energy transferred to the DR.

Auteur principal: SIMON, Théo (Montpellier Universe and Particles Laboratory - CNRS)

Orateur: SIMON, Théo (Montpellier Universe and Particles Laboratory - CNRS)