Contribution ID : **49** Type : **not specified**

Dark matter hunting in the CTA era

Wednesday, 25 November 2020 13:40 (0:20)

Content

The Cherenkov Telescope Array (CTA) is the next-generation gamma-ray observatory at TeV energies. It will consist of more than one hundred telescopes shared between its two sites (CTA North, located in La Palma, Spain; and CTA South, in the Atacama Desert, Chile), allowing to obtain observational data with unprecedented spatial and energy resolution. Because of its high sensitivity, large field of view, and angular resolution, CTA will provide new insights into how particles accelerate to very high energies in extreme environments, and into frontier physics. CTA will include a key science program for indirect searches of gamma-ray signals induced by annihilation or decay of dark matter candidates with masses at TeV scales, where CTA will probe dark matter annihilation cross-sections below the thermal value. This program will provide 1500 hours spread over several years, which will decisively improve our understanding of the nature of dark matter. In this talk, I present the selected targets and proposed time line in the dark matter program of the CTA Observatory.

Summary

Primary author(s) : HERNANDEZ CADENA, Sergio (Instituto de Física, UNAM)

Presenter(s) : HERNANDEZ CADENA, Sergio (Instituto de Física, UNAM)