



Contribution ID: 147 Contribution code: **S4 High Energy and Particle Physics**
Presentation

Type: **Oral**

Searching for dark matter with the Cherenkov Telescope Array.

Friday 24 June 2022 10:00 (15 minutes)

Thailand is involved in the next generation of Cherenkov Telescopes, the Cherenkov Telescope Array (CTA). Amongst the main CTA key science cases is the search for dark matter (DM). With a sensitivity one order of magnitude better than current instruments, CTA will be in a unique position to discover a DM signal in the GeV and TeV energy domain, or, in the absence of it, to significantly improve the current DM limits. In this contribution, I will introduce the principle of gamma-ray detection from the ground using Cherenkov Telescopes and in particular CTA. I will illustrate the search for a signal from dark matter annihilation using simulated data from two dwarf spheroidal galaxies, Draco and Sculptor.

Authors: JARDIN-BLICQ, Armelle (NARIT); DUANGCHAN, Chaimongkol (Kasetsart University); Dr PONGKITIVANICHKUL, Chakrit (Khon Kaen University); Dr UTTAYARAT, Patipan (Srinakharinwirot University); Dr WECHAKAMA, Maneenate (Kasetsart University); Mr KLANGBURAM, Taneech (Khon Kaen University); TREESUKRAT, Wararat (Srinakharinwirot University); Dr SAMART, Daris (Khon Kaen University); Dr SAWANGWIT, Utane (NARIT); Ms AGUIRRE-SANTAELLA, Alejandra (Autonomous University of Madrid); Dr SÁNCHEZ-CONDE, Miguel (Autonomous University of Madrid)

Presenter: JARDIN-BLICQ, Armelle (NARIT)

Session Classification: S4 High Energy and Particle Physics

Track Classification: High Energy and Particle Physics