

# Indirect Dark Matter Searches with the Cherenkov Telescope Array

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A leading candidate for astrophysical dark matter (DM) is a weakly interacting particle with a mass in the range from 10 GeV to 10 TeV. The pair annihilation of DM in environments with high DM density such as in the cores of galaxies could produce gamma-ray signals detectable with space- or ground-based gamma-ray observatories. The Cherenkov Telescope Array (CTA) is a future ground-based gamma-ray observatory that will be sensitive to gamma rays in the energy range from a few tens of GeV to 100 TeV. I will present the projected sensitivity of CTA to DM signals in the Galactic Center region and dwarf spheroidal galaxies of the Milky Way. I will discuss these projections in the context of a specific model framework, the phenomenological MSSM (pMSSM), and review the complementarity of CTA with direct detection experiments and DM searches at the Large Hadron Collider.

## **APS member ID**

61012865

**Primary author:** Dr WOOD, Matthew (SLAC)

**Presenter:** Dr WOOD, Matthew (SLAC)

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