

Searching solo for the invisible at CMS

Thursday 28 August 2025 14:48 (16 minutes)

Determination of the nature of dark matter is one of the most fundamental problems of particle physics and cosmology. This talk presents recent searches for dark matter particles from the CMS experiment at the Large Hadron Collider in mono-X signatures. This talk will discuss the first search using the low-multiplicity jet signature at the LHC and supervised machine learning and data augmentation techniques used to enhance signal sensitivity and other searches targetting the collider dark matter signatures.

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