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Search for SIMPs Using Trackless Jets at the CMS Experiment

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The existence of Dark Matter in the form of Strongly Interacting Massive Particles (SIMPs) can be motivated by astrophysical observations that challenge the classical Cold Dark Matter scenario. Although other observations greatly constrain this alternative, they do not completely exclude it. The signature of SIMPs at CMS consists of pair-produced neutral, hadron-like, trackless jets. The absence of charged content in this type of jets provides a very efficient tool to suppress the QCD dijet background. We present the search for this signal, which was performed using the 2016 CMS data.

Summary

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