

Abstract Submitted
for the APR21 Meeting of
The American Physical Society

Search for Dark Matter produced in association with top quarks

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COLLABORATION — A search for Dark Matter produced in association with top quarks is presented. The search is performed using 137 fb⁻¹ of pp collisions recorded at a center of mass energy of 13 TeV with the CMS detector at the LHC. The signature investigated include those yielding top quark pairs or a single top quark plus missing transverse energy, including both semileptonic and hadronic final states. This work focuses in particular on Dark Matter production through scalar and pseudoscalar interactions, which enhance the discovery potential of the LHC under this assumption.

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Date submitted: 05 Jan 2021

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