Dark Matter @ LHC 2019 (DM@LHC)



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[YSF] Search for dark matter in third generation quarks in ATLAS

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Discovering dark matter particles and understanding their connection to the Standard Model is one of the greatest quests in particle physics and cosmology today and the Large Hadron Collider (LHC) offers a large range of important search channels. The first searches for weakly interacting massive particle dark matter produced in association with top quarks based on the complete dataset at 13 TeV collected by the ATLAS Collaboration are presented. In models with enhanced couplings to third generation quarks or heavy fermions, this production mechanism is the dominant mode at the LHC. A particular focus is given to target signals with a moderate missing transverse energy signature.

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