

Searching for dark matter with detector-corrected observables at ATLAS

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A new detector-independent search for dark matter in pp collisions at 13 TeV in final states with jets and missing transverse energy using the ATLAS experiment will be presented. The measured quantity is the cross-section ratio between the production of jets in association with missing transverse energy and the production of jets in association with an opposite-sign same-flavour lepton pair. This ratio, corrected for detector resolution and efficiency effects and measured differentially with respect to a number of kinematic properties of the missing transverse energy plus jets system, allows competitive limits to be set on a wide range of dark matter models.

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