

atlas_1604_01306 CutFlow

ATLAS

atlas_1604_01306

ATLAS-EXOT-2015-05

monophoton + MET

Energy: 13 TeV

Luminosity: 3.2 fb⁻¹

Montecarlo: MG5+Pythia6, <http://feynrules.irmp.ucl.ac.be/wiki/DMSimp>

Signal region	SR	
Process	Dirac dark matter pair production with spin-1 mediator	
Point	$m(V_{\text{med}}) = 1000 \text{ GeV}, m(\tilde{\chi}) = 1000 \text{ GeV}$	
Source	ATLAS	CheckMATE
Generated events	10000.0	10000.0
Initial Events	10000 ± 0	10000 ± 0
Event skim*	9520 ± 21	-
Trigger	9520 ± 21	9550 ± 21
Good vertex	9520 ± 21	-
Cleaning	9496 ± 22	-
$E_T^{\text{miss}} > 150 \text{ GeV}$	8117 ± 39	7710 ± 42
≥ 1 loose photon with $p_T > 150 \text{ GeV}$	6769 ± 47	6870 ± 46
The leading photon is tight (CM: medium)	6405 ± 48	6160 ± 49
The photon is isolated	6146 ± 49	6000 ± 49
$\Delta\phi(\gamma, E_T^{\text{miss}}) > 0.4$	6102 ± 49	5970 ± 49
Jet veto	4319 ± 50	4880 ± 50
Lepton veto	4308 ± 50	4880 ± 50

Table 1: Cutflow validation for atlas_1604_01306. Shown are number of Monte-Carlo generated events passing each cut for the experimental collaboration. The CheckMATE result is normalised to the same value. Final error is Monte-Carlo events only.