

# atlas\_1704\_03848 CutFlow

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ATLAS  
 atlas.1704\_03848  
 ATLAS-EXOT-2016-32  
 monophoton search for dark matter  
 Energy: 13 TeV  
 Luminosity: 36.1 fb<sup>-1</sup>  
 Montecarlo: MadGraph5\_aMC@NLO 2.5.5

Signal region	all	
Process	$pp \rightarrow \chi\chi\gamma$	
Point	$m_{\text{mess}} = 800 \text{ GeV}, m_\chi = 10 \text{ GeV}$	
Source	$g_q = 0.25, g_\chi = 1$	
Generated events	ATLAS	CheckMATE
Nominal	–	9999
Skimming (incl. trigger)	1198	1198
$E_T^{\text{miss}} \geq 150 \text{ GeV}$	858	964 ± 11
At least 1 loose photon with $E_T > 150 \text{ GeV}$	736	816 ± 11
$z_0 < 250 \text{ mm}$	700	774 ± 10
Leading photon tight	696	–
Leading photon isolated	658	692 ± 9
$d\phi(\gamma, E_T^{\text{miss}}) > 0.4$	622	656 ± 9
$E_T^{\text{miss}} / \sqrt{\sum E_T} > 8.5 \text{ GeV}^{1/2}$	620	653 ± 9
Jet veto	596	635 ± 9
Lepton veto	461	501 ± 8
SRI1	460	500 ± 8
SRI2	255	256 ± 5
SRI3	132	130.6 ± 4

Table 1: Cutflow validation for atlas\_1704\_03848. Shown are number of events passing each cut normalised to a luminosity of 36.1 fb<sup>-1</sup>. Final error is Monte-Carlo events only.