	700 GeV, 1000 cm, region 2017			
Cut	$\epsilon_i^{ ext{CMS}}$	$\epsilon_i^{\rm sim}$, HEPMC	$\epsilon_i^{\rm sim}$, CKKWL	$\epsilon_i^{\mathrm{sim}},\mathrm{MLM}$
total	$1.0^{+0.00}_{-0.00}$	$1.0^{+0.00}_{-0.00}$	$1.0^{+0.00}_{-0.00}$	$1.0^{+0.00}_{-0.00}$
trigger	$2.0^{+0.02}_{-0.02} \times 10^{-1}$	$1.8^{+0.01}_{-0.01} \times 10^{-1}$	$2.1^{+0.01}_{-0.01} \times 10^{-1}$	$1.7^{+0.01}_{-0.01} \times 10^{-1}$
passes $p_{\mathrm{T}}^{\mathrm{miss}}$ filters	$2.0^{+0.02}_{-0.02} \times 10^{-1}$	$1.8^{+0.01}_{-0.01} \times 10^{-1}$	$2.1^{+0.01}_{-0.01} \times 10^{-1}$	$1.7^{+0.01}_{-0.01} \times 10^{-1}$
$p_{\mathrm{T}}^{\mathrm{miss}} > 120\mathrm{GeV}$	$1.9^{+0.02}_{-0.02} \times 10^{-1}$	$1.8^{+0.01}_{-0.01} \times 10^{-1}$	$2.1^{+0.01}_{-0.01} \times 10^{-1}$	$1.7^{+0.01}_{-0.01} \times 10^{-1}$
≥ 1 jet with $p_{\rm T} > 110{ m GeV}$ and $ \eta < 2.4$	$1.4^{+0.02}_{-0.02} \times 10^{-1}$	$1.4^{+0.01}_{-0.01} \times 10^{-1}$	$1.4^{+0.01}_{-0.01} \times 10^{-1}$	$1.0^{+0.01}_{-0.01} \times 10^{-1}$
==0 pairs of jets with $\Delta \phi_{\rm jet,\ jet} > 2.5$	$ \begin{array}{c} 1.2^{+0.02}_{-0.02} \times 10^{-1} \\ 1.2^{+0.02}_{-0.02} \times 10^{-1} \\ 1.2^{+0.02}_{-0.02} \times 10^{-1} \end{array} $	$1.2^{+0.01}_{-0.01} \times 10^{-1}$	$1.2^{+0.01}_{-0.01} \times 10^{-1}$	$\mid 9.3^{+0.08}_{-0.08} \times 10^{-2} \mid \mid$
$ \Delta\phi({ m leading jet}, \vec{p}_{ m T}^{ m miss}) > 0.5$	$1.2^{+0.02}_{-0.02} \times 10^{-1}$	$1.2^{+0.01}_{-0.01} \times 10^{-1}$	$1.1^{+0.01}_{-0.01} \times 10^{-1}$	$8.8^{+0.08}_{-0.08} \times 10^{-2}$
≥ 1 track with $ \eta < 2.1$	$1.2^{+0.05}_{-0.02} \times 10^{-1}$	$1.2^{+0.01}_{-0.01} \times 10^{-1}$	$\begin{array}{ c c c c c c c c c c c c c c c c c c c$	$8.8^{+0.08}_{-0.08} \times 10^{-2}$
$\geq 1 \text{ track with } p_{\mathrm{T}} > 55 \mathrm{GeV}$	$ \begin{array}{c c} 1.2_{-0.02} \times 10 \\ 1.1_{-0.02}^{+0.02} \times 10^{-1} \\ 7.9_{-0.12}^{+0.12} \times 10^{-2} \end{array} $	$1.1^{+0.01}_{-0.01} \times 10^{-1}$	$1.0^{+0.01}_{-0.01} \times 10^{-1}$	$ \begin{array}{c} 8.8^{+0.08}_{-0.08} \times 10^{-2} \\ 8.2^{+0.08}_{-0.08} \times 10^{-2} \\ 6.9^{+0.07}_{-0.07} \times 10^{-2} \end{array} $
≥ 1 track passing fiducial selections	$7.9^{+0.12}_{-0.12} \times 10^{-2}$	$8.7^{+0.08}_{-0.08} \times 10^{-2}$	$8.7^{+0.08}_{-0.08} \times 10^{-2}$	$6.9^{+0.07}_{-0.07} \times 10^{-2}$
≥ 1 track with ≥ 4 pixel hits	$5.9^{+0.10}_{-0.10} \times 10^{-2}$	$7.0^{+0.07}_{-0.07} \times 10^{-2}$	$6.9^{+0.07}_{-0.07} \times 10^{-2}$	$\mid 5.5^{+0.07}_{-0.07} \times 10^{-2} \mid \mid$
≥ 1 track with no missing inner hits	$5.9^{+0.10}_{-0.10} \times 10^{-2}$	$4.8^{+0.06}_{-0.06} \times 10^{-2}$	$4.7^{+0.06}_{-0.06} \times 10^{-2}$	$3.8^{+0.06}_{-0.06} \times 10^{-2}$
≥ 1 track with no missing middle hits	$5.4^{+0.10}_{-0.10} \times 10^{-2}$	$4.8^{+0.06}_{-0.06} \times 10^{-2}$	$4.7^{+0.06}_{-0.06} \times 10^{-2}$	$3.8^{+0.06}_{-0.06} \times 10^{-2}$
≥ 1 track with relative track isolation $< 5\%$	$4.6^{+0.10}_{-0.10} \times 10^{-2}$	$3.8^{+0.06}_{-0.06} \times 10^{-2}$	$3.5^{+0.05}_{-0.05} \times 10^{-2}$	$2.9^{+0.05}_{-0.05} \times 10^{-2}$
$\geq 1 \text{ track with } d_{xy} < 0.02 \text{cm}$	$4.6^{+0.10}_{-0.10} \times 10^{-2}$	$3.8^{+0.06}_{-0.06} \times 10^{-2}$	$3.5^{+0.05}_{-0.05} \times 10^{-2}$	$2.9^{+0.05}_{-0.05} \times 10^{-2}$
$\geq 1 \text{ track with } d_z < 0.5 \text{cm}$	$4.6^{+0.10}_{-0.10} \times 10^{-2}$	$3.8^{+0.06}_{-0.06} \times 10^{-2}$	$3.5^{+0.05}_{-0.05} \times 10^{-2}$	$2.9^{+0.05}_{-0.05} \times 10^{-2}$
$\geq 1 \text{ track with } \Delta R(\text{track, jet}) > 0.5$	$4.5^{+0.10}_{-0.10} \times 10^{-2}$	$3.7^{+0.06}_{-0.06} \times 10^{-2}$	$3.4^{+0.05}_{-0.05} \times 10^{-2}$	$2.8^{+0.05}_{-0.05} \times 10^{-2}$
≥ 1 track with $\Delta R(\text{track}, \text{electron}) > 0.15$	$4.0^{+0.09}_{-0.09} \times 10^{-2}$	$3.7^{+0.06}_{-0.06} \times 10^{-2}$	$3.4^{+0.05}_{-0.05} \times 10^{-2}$	$ 2.8^{+0.05}_{-0.05} \times 10^{-2} $
≥ 1 track with $\Delta R(\text{track}, \text{muon}) > 0.15$	$1.7^{+0.06}_{-0.06} \times 10^{-2}$	$2.5^{+0.05}_{-0.05} \times 10^{-2}$	$2.3^{+0.04}_{-0.04} \times 10^{-2}$	$1.9^{+0.04}_{-0.04} \times 10^{-2}$
$\geq 1 \text{ track with } \Delta R(\text{track}, \tau_{\text{h}}) > 0.15$	$\begin{array}{ c c c c c c c c c c c c c c c c c c c$	$2.5^{+0.05}_{-0.05} \times 10^{-2}$	$2.3^{+0.04}_{-0.04} \times 10^{-2}$	$1.9^{+0.04}_{-0.04} \times 10^{-2}$
$\geq 1 \text{ track with } E_{\text{calo}} < 10 \text{GeV}$	$1.6^{+0.06}_{-0.06} \times 10^{-2}$	$2.5^{+0.05}_{-0.05} \times 10^{-2}$	$2.3^{+0.04}_{-0.04} \times 10^{-2}$	$1.9^{+0.04}_{-0.04} \times 10^{-2}$
≥ 1 track with ≥ 3 missing outer hits	$5.4^{+0.33}_{-0.33} \times 10^{-3}$	$5.7^{+0.22}_{-0.22} \times 10^{-3}$	$5.1^{+0.21}_{-0.21} \times 10^{-3}$	$4.4^{+0.19}_{-0.19} \times 10^{-3}$
≥ 1 track with 4 layers	$8.1^{+1.38}_{-1.38} \times 10^{-4}$	$6.9^{+0.77}_{-0.77} \times 10^{-4}$	$6.8^{+0.77}_{-0.77} \times 10^{-4}$	$5.9^{+0.71}_{-0.71} \times 10^{-4}$
≥ 1 track with 5 layers	$6.6^{+1.21}_{-1.21} \times 10^{-4}$	$8.4^{+0.85}_{-0.85} \times 10^{-4}$	$6.9^{+0.77}_{-0.77} \times 10^{-4}$	$6.9^{+0.77}_{-0.77} \times 10^{-4}$
≥ 1 track with ≥ 6 layers	$4.0^{+0.29}_{-0.29} \times 10^{-3}$	$4.1^{+0.19}_{-0.19} \times 10^{-3}$	$3.6^{+0.18}_{-0.18} \times 10^{-3}$	$3.0^{+0.16}_{-0.16} \times 10^{-3}$

Table 1: Cutflow comparison for 700 GeV, 1000 cm, region 2017

	700 GeV, 1000 cm, region 2018A			
Cut	$\epsilon_i^{ ext{CMS}}$	$\epsilon_i^{\rm sim}$, HEPMC	$\epsilon_i^{\rm sim}$, CKKWL	$\epsilon_i^{\mathrm{sim}},\mathrm{MLM}$
total	$1.0^{+0.00}_{-0.00}$	$1.0^{+0.00}_{-0.00}$	$1.0^{+0.00}_{-0.00}$	$1.0^{+0.00}_{-0.00}$
trigger	$1.6^{+0.02}_{-0.02} \times 10^{-1}$	$1.8^{+0.01}_{-0.01} \times 10^{-1}$	$2.1^{+0.01}_{-0.01} \times 10^{-1}$	$1.7^{+0.01}_{-0.01} \times 10^{-1}$
passes $p_{\mathrm{T}}^{\mathrm{miss}}$ filters	$1.6^{+0.02}_{-0.02} \times 10^{-1}$	$1.8^{+0.01}_{-0.01} \times 10^{-1}$	$2.1^{+0.01}_{-0.01} \times 10^{-1}$	$1.7^{+0.01}_{-0.01} \times 10^{-1}$
$p_{\mathrm{T}}^{\mathrm{miss}} > 120\mathrm{GeV}$	$1.5^{+0.02}_{-0.02} \times 10^{-1}$	$1.8^{+0.01}_{-0.01} \times 10^{-1}$	$2.1^{+0.01}_{-0.01} \times 10^{-1}$	$1.7^{+0.01}_{-0.01} \times 10^{-1}$
≥ 1 jet with $p_{ m T} > 110{ m GeV}$ and $ \eta < 2.4$	$1.4^{+0.02}_{-0.02} \times 10^{-1}$	$1.4^{+0.01}_{-0.01} \times 10^{-1}$	$1.4^{+0.01}_{-0.01} \times 10^{-1}$	$1.0^{+0.01}_{-0.01} \times 10^{-1}$
==0 pairs of jets with $\Delta \phi_{\rm jet, jet} > 2.5$	$1.2^{+0.01}_{-0.01} \times 10^{-1}$	$1.2^{+0.01}_{-0.01} \times 10^{-1}$	$1.2^{+0.01}_{-0.01} \times 10^{-1}$	$9.3^{+0.08}_{-0.08} \times 10^{-2}$
$ \Delta\phi({ m leading jet}, \bar{p}_{ m T}^{ m miss}) > 0.5$	$1.2^{+0.01}_{-0.01} \times 10^{-1}$	$1.2^{+0.01}_{-0.01} \times 10^{-1}$	$1.1^{+0.01}_{-0.01} \times 10^{-1}$	$8.8^{+0.08}_{-0.08} \times 10^{-2}$
≥ 1 track with $ \eta < 2.1$	$1.2^{+0.01}_{-0.01} \times 10^{-1}$	$1.2^{-0.01}_{-0.01} \times 10^{-1}$	$1.1^{+0.01}_{-0.01} \times 10^{-1}$	$8.8^{+0.08}_{-0.08} \times 10^{-2}$
$\geq 1 \text{ track with } p_{\text{T}} > 55 \text{GeV}$	$1.0^{+0.01}_{-0.01} \times 10^{-1}$	$1.1^{+0.01}_{-0.01} \times 10^{-1}$	$\begin{array}{ c c c c c c c c c c c c c c c c c c c$	$1.82^{+0.08}_{-0.08} \times 10^{-2}$
≥ 1 track passing fiducial selections	$7.5^{+0.14}_{-0.14} \times 10^{-2}$	$8.7^{+0.08}_{-0.08} \times 10^{-2}$	$8.7^{+0.08}_{-0.08} \times 10^{-2}$	$ 6.9^{+0.07}_{-0.07} \times 10^{-2} $
≥ 1 track with ≥ 4 pixel hits	$5.3^{+0.10}_{-0.10} \times 10^{-2}$	$7.0^{+0.07}_{-0.07} \times 10^{-2}$	$6.9^{+0.07}_{-0.07} \times 10^{-2}$	$5.5^{+0.07}_{-0.07} \times 10^{-2}$
≥ 1 track with no missing inner hits	$5.2^{+0.10}_{-0.10} \times 10^{-2}$	$4.8^{+0.06}_{-0.06} \times 10^{-2}$	$4.7^{+0.06}_{-0.06} \times 10^{-2}$	$3.8^{+0.06}_{-0.06} \times 10^{-2}$
≥ 1 track with no missing middle hits	$4.6^{+0.10}_{-0.10} \times 10^{-2}$	$4.8^{+0.06}_{-0.06} \times 10^{-2}$	$4.7^{+0.06}_{-0.06} \times 10^{-2}$	$3.8^{+0.06}_{-0.06} \times 10^{-2}$
≥ 1 track with relative track isolation $< 5\%$	$3.8^{+0.10}_{-0.10} \times 10^{-2}$	$3.8^{+0.06}_{-0.06} \times 10^{-2}$	$3.5^{+0.05}_{-0.05} \times 10^{-2}$	$2.9^{+0.05}_{-0.05} \times 10^{-2}$
$\geq 1 \text{ track with } d_{\mathrm{xy}} < 0.02 \mathrm{cm}$	$3.8^{+0.10}_{-0.10} \times 10^{-2}$	$3.8^{+0.06}_{-0.06} \times 10^{-2}$	$3.5^{+0.05}_{-0.05} \times 10^{-2}$	$2.9^{+0.05}_{-0.05} \times 10^{-2}$
$\geq 1 \text{ track with } d_z < 0.5 \text{ cm}$	$3.8^{+0.10}_{-0.10} \times 10^{-2}$	$3.8^{+0.06}_{-0.06} \times 10^{-2}$	$3.5^{+0.05}_{-0.05} \times 10^{-2}$	$2.9^{+0.05}_{-0.05} \times 10^{-2}$
≥ 1 track with $\Delta R({ m track, jet}) > 0.5$	$3.8^{+0.10}_{-0.10} \times 10^{-2}$	$3.7^{+0.06}_{-0.06} \times 10^{-2}$	$3.4^{+0.05}_{-0.05} \times 10^{-2}$	$2.8^{+0.05}_{-0.05} \times 10^{-2}$
≥ 1 track with $\Delta R(\text{track}, \text{electron}) > 0.15$	$3.3^{+0.08}_{-0.08} \times 10^{-2}$	$3.7^{+0.06}_{-0.06} \times 10^{-2}$	$3.4^{+0.05}_{-0.05} \times 10^{-2}$	$2.8^{+0.05}_{-0.05} \times 10^{-2}$
≥ 1 track with $\Delta R(\text{track}, \text{muon}) > 0.15$	$1.4^{+0.05}_{-0.05} \times 10^{-2}$	$2.5^{+0.05}_{-0.05} \times 10^{-2}$	$2.3^{+0.04}_{-0.04} \times 10^{-2}$	$1.9^{+0.04}_{-0.04} \times 10^{-2}$
$\geq 1 \text{ track with } \Delta R(\text{track}, \tau_{\text{h}}) > 0.15$	$1.4^{+0.05}_{-0.05} \times 10^{-2}$	$2.5^{+0.05}_{-0.05} \times 10^{-2}$	$\begin{array}{ c c c c c c c c c c c c c c c c c c c$	$1.9^{+0.04}_{-0.04} \times 10^{-2}$
$\geq 1 \text{ track with } E_{\text{calo}} < 10 \text{GeV}$	$1.3^{+0.05}_{-0.05} \times 10^{-2}$	$2.5^{+0.05}_{-0.05} \times 10^{-2}$	$2.3^{+0.04}_{-0.04} \times 10^{-2}$	$1.9^{+0.04}_{-0.04} \times 10^{-2}$
≥ 1 track with ≥ 3 missing outer hits	$4.6^{+0.31}_{-0.31} \times 10^{-3}$	$5.7^{+0.22}_{-0.22} \times 10^{-3}$	$5.1^{+0.21}_{-0.21} \times 10^{-3}$	$4.4^{+0.19}_{-0.19} \times 10^{-3}$
≥ 1 track with 4 layers	$7.1^{+1.36}_{-1.36} \times 10^{-4}$	$6.7^{+0.\overline{76}}_{-0.\overline{76}} \times 10^{-4}$	$6.7^{+0.76}_{-0.76} \times 10^{-4}$	$5.8^{+0.70}_{-0.70} \times 10^{-4}$
≥ 1 track with 5 layers	$4.8^{+1.02}_{-1.02} \times 10^{-4}$	$8.7^{+0.87}_{-0.87} \times 10^{-4}$	$6.9^{+0.78}_{-0.78} \times 10^{-4}$	$6.6^{+0.75}_{-0.75} \times 10^{-4}$
≥ 1 track with ≥ 6 layers	$3.4^{+0.27}_{-0.27} \times 10^{-3}$	$4.0^{+0.18}_{-0.18} \times 10^{-3}$	$3.6^{+0.18}_{-0.18} \times 10^{-3}$	$3.1^{+0.16}_{-0.16} \times 10^{-3}$

Table 2: Cutflow comparison for $700~{\rm GeV},\,1000~{\rm cm},\,{\rm region}~2018{\rm A}$

	700 GeV, 1000 cm, region 2018B				
Cut	$\epsilon_i^{ ext{CMS}}$	$ \epsilon_i^{\text{sim}}, \text{HEPMC} $	$ \epsilon_i^{\rm sim}, {\rm CKKWL} $	$\epsilon_i^{\rm sim},{ m MLM}$	
total	$1.0^{+0.00}_{-0.00}$	$\begin{array}{c c} 1.0^{+0.00}_{-0.00} \\ \end{array}$	$\begin{array}{ c c c c c c c c c c c c c c c c c c c$	$1.0^{+0.00}_{-0.00}$	
	$1.6^{+0.02}_{-0.02} \times 10^{-1}$	$\begin{array}{ c c c c c }\hline 1.0_{-0.00} \\ 1.8_{-0.01}^{+0.01} \times 10^{-1} \end{array}$	$\begin{array}{ c c c c c }\hline 1.0_{-0.00} \\ 2.1_{-0.01}^{+0.01} \times 10^{-1} \\ \hline \end{array}$	$\begin{array}{ c c c c c c }\hline 1.0_{-0.00} \\ 1.7_{-0.01}^{+0.01} \times 10^{-1} \end{array}$	
trigger	$ \begin{vmatrix} 1.6^{+0.02}_{-0.02} \times 10^{-1} \\ 1.6^{+0.02}_{-0.02} \times 10^{-1} \\ 1.5^{+0.02}_{-0.02} \times 10^{-1} \end{vmatrix} $	$1.8^{+0.01}_{-0.01} \times 10^{-1}$	$2.1^{+0.01}_{-0.01} \times 10^{-1}$	$\begin{bmatrix} 1.7_{-0.01} \times 10 \\ 1.7_{+0.01} \times 10^{-1} \end{bmatrix}$	
passes $p_{\mathrm{T}}^{\mathrm{miss}}$ filters	$1.0_{-0.02}^{+0.02} \times 10^{-1}$	$\begin{vmatrix} 1.8^{+0.01}_{-0.01} \times 10^{-1} \\ 1.8^{+0.01}_{-0.01} \times 10^{-1} \end{vmatrix}$	$ \begin{vmatrix} 2.1_{-0.01}^{+0.01} \times 10^{-1} \\ 2.1_{-0.01}^{+0.01} \times 10^{-1} \end{vmatrix} $	$ \begin{vmatrix} 1.7^{+0.01}_{-0.01} \times 10^{-1} \\ 1.7^{+0.01}_{-0.01} \times 10^{-1} \end{vmatrix} $	
	$ \begin{array}{c} 1.0_{-0.02} \times 10 \\ 1.5_{-0.02}^{+0.02} \times 10^{-1} \\ 1.3_{-0.02}^{+0.02} \times 10^{-1} \end{array} $	$ \begin{vmatrix} 1.8^{+0.01}_{-0.01} \times 10^{-1} \\ 1.4^{+0.01}_{-0.01} \times 10^{-1} \end{vmatrix} $	$2.1^{+0.01}_{-0.01} \times 10^{-1}$		
≥ 1 jet with $p_{\rm T} > 110{ m GeV}$ and $ \eta < 2.4$	$1.3^{+0.02}_{-0.02} \times 10^{-1}$	$1.4^{+0.01}_{-0.01} \times 10^{-1}$	$1.4^{+0.01}_{-0.01} \times 10^{-1}$	$1.0^{+0.01}_{-0.01} \times 10^{-1}$	
==0 pairs of jets with $\Delta \phi_{\rm jet, jet} > 2.5$	$1.2^{+0.01}_{-0.01} \times 10^{-1}$	$1.2^{+0.01}_{-0.01} \times 10^{-1}$	$1.2^{+0.01}_{-0.01} \times 10^{-1}$	$9.3^{-0.08}_{-0.08} \times 10^{-2}$	
$ \Delta\phi({ m leading jet}, ec{p}_{ m T}^{ m miss}) > 0.5$	$1.2^{+0.01}_{-0.01} \times 10^{-1}$	$1.2^{+0.01}_{-0.01} \times 10^{-1}$	$1.1^{+0.01}_{-0.01} \times 10^{-1}$	$8.8^{+0.08}_{-0.08} \times 10^{-2}$	
≥ 1 track with $ \eta < 2.1$	$1.2^{+0.01}_{-0.01} \times 10^{-1}$	$1.2^{+0.01}_{-0.01} \times 10^{-1}$	$1.1^{+0.01}_{-0.01} \times 10^{-1}$	$8.8^{+0.08}_{-0.08} \times 10^{-2}$	
$\geq 1 \text{ track with } p_{\mathrm{T}} > 55 \mathrm{GeV}$	$1.0^{+0.01}_{-0.01} \times 10^{-1}$	$1.1^{+0.01}_{-0.01} \times 10^{-1}$	$1.0^{+0.01}_{-0.01} \times 10^{-1}$	$8.2^{+0.08}_{-0.08} \times 10^{-2}$	
≥ 1 track passing fiducial selections	$7.5^{+0.13}_{-0.13} \times 10^{-2}$	$8.7^{+0.08}_{-0.08} \times 10^{-2}$	$8.7^{+0.08}_{-0.08} \times 10^{-2}$	$6.9^{+0.07}_{-0.07} \times 10^{-2}$	
≥ 1 track with ≥ 4 pixel hits	$5.3^{+0.11}_{-0.11} \times 10^{-2}$	$7.0^{+0.05}_{-0.07} \times 10^{-2}$	$6.9^{+0.05}_{-0.07} \times 10^{-2}$	$5.5^{+0.07}_{-0.07} \times 10^{-2}$	
≥ 1 track with no missing inner hits	$5.2^{+0.11}_{-0.11} \times 10^{-2}$	$4.8^{+0.06}_{-0.06} \times 10^{-2}$	$4.7^{+0.06}_{-0.06} \times 10^{-2}$	$3.8^{+0.06}_{-0.06} \times 10^{-2}$	
≥ 1 track with no missing middle hits	$\begin{array}{ c c c c c c c c c c c c c c c c c c c$	$4.8^{+0.06}_{-0.06} \times 10^{-2}$	$4.7^{+0.06}_{-0.06} \times 10^{-2}$	$3.8^{+0.06}_{-0.06} \times 10^{-2}$	
≥ 1 track with relative track isolation $< 5\%$	$3.9^{+0.09}_{-0.09} \times 10^{-2}$	$3.8^{+0.06}_{-0.06} \times 10^{-2}$	$3.5^{+0.05}_{-0.05} \times 10^{-2}$	$2.9^{+0.05}_{-0.05} \times 10^{-2}$	
$\geq 1 \text{ track with } d_{xy} < 0.02 \text{cm}$	$3.9^{+0.09}_{-0.09} \times 10^{-2}$	$3.8^{+0.06}_{-0.06} \times 10^{-2}$	$3.5^{+0.05}_{-0.05} \times 10^{-2}$	$ 2.9^{+0.05}_{-0.05} \times 10^{-2} $	
≥ 1 track with $ d_z < 0.5 \mathrm{cm}$	$3.9^{-0.09}_{-0.09} \times 10^{-2}$	$3.8^{+0.06}_{-0.06} \times 10^{-2}$	$3.5^{+0.05}_{-0.05} \times 10^{-2}$	$2.9^{+0.05}_{-0.05} \times 10^{-2}$	
$\geq 1 \text{ track with } \Delta R(\text{track, jet}) > 0.5$	$3.8^{+0.09}_{-0.09} \times 10^{-2}$	$3.7^{+0.06}_{-0.06} \times 10^{-2}$	$3.4^{+0.05}_{-0.05} \times 10^{-2}$	$2.8^{+0.05}_{-0.05} \times 10^{-2}$	
$\geq 1 \text{ track with } \Delta R(\text{track, electron}) > 0.15$	$3.3^{+0.07}_{-0.07} \times 10^{-2}$	$3.7^{+0.06}_{-0.06} \times 10^{-2}$	$3.4^{+0.05}_{-0.05} \times 10^{-2}$	$2.8^{+0.05}_{-0.05} \times 10^{-2}$	
$\geq 1 \text{ track with } \Delta R(\text{track}, \text{muon}) > 0.15$	$1.4^{+0.05}_{-0.05} \times 10^{-2}$	$2.5^{+0.05}_{-0.05} \times 10^{-2}$	$2.3^{+0.04}_{-0.04} \times 10^{-2}$	$1.9^{+0.04}_{-0.04} \times 10^{-2}$	
$\geq 1 \text{ track with } \Delta R(\text{track}, \tau_{\text{h}}) > 0.15$	$1.4^{+0.05}_{-0.05} \times 10^{-2}$	$2.5^{+0.05}_{-0.05} \times 10^{-2}$	$2.3^{+0.04}_{-0.04} \times 10^{-2}$	$1.9^{+0.04}_{-0.04} \times 10^{-2}$	
$\geq 1 \text{ track with } E_{\text{calo}} < 10 \text{GeV}$	$1.4^{+0.05}_{-0.05} \times 10^{-2}$	$2.5^{+0.05}_{-0.05} \times 10^{-2}$	$2.3^{+0.04}_{-0.04} \times 10^{-2}$	$1.9^{+0.04} \times 10^{-2}$	
≥ 1 track with ≥ 3 missing outer hits	$4.6^{+0.30}_{-0.30} \times 10^{-3}$	$5.7^{+0.22} \times 10^{-3}$	$5.1^{+0.21}_{-0.21} \times 10^{-3}$	$4.4^{+0.19}_{-0.19} \times 10^{-3}$	
$\phi(p_{\rm T}^{\rm miss}) < -1.6 \text{ or } \phi(p_{\rm T}^{\rm miss}) > -0.6$	$3.8^{+0.28}_{-0.28} \times 10^{-3}$	$\begin{array}{c} 3.7_{-0.22} \times 10 \\ 4.9_{-0.20}^{+0.20} \times 10^{-3} \\ 5.9_{-0.71}^{+0.71} \times 10^{-4} \end{array}$	$4.2^{+0.19}_{-0.10} \times 10^{-3}$	$3.6^{+0.18}_{-0.18} \times 10^{-3}$	
≥ 1 track with 4 layers	$6.5^{+1.11} \times 10^{-4}$	$5.9^{+0.71}_{-0.71} \times 10^{-4}$	$6.0^{+0.72}_{-0.72} \times 10^{-4}$	$1.5.2^{+0.07} \times 10^{-4}$	
≥ 1 track with 5 layers	$\begin{array}{c} 3.3_{-0.93}^{+0.11} \times 10 \\ 4.3_{-0.93}^{+0.93} \times 10^{-4} \end{array}$	$7.2^{+0.78}_{-0.78} \times 10^{-4}$	$6.6^{+0.76}_{-0.76} \times 10^{-4}$	$5.6^{+0.69}_{-0.69} \times 10^{-4}$	
≥ 1 track with ≥ 6 layers	$2.8^{+0.34}_{-0.24} \times 10^{-3}$	$3.4^{+0.17}_{-0.17} \times 10^{-3}$	$2.9^{+0.16}_{-0.16} \times 10^{-3}$	$2.5^{+0.15}_{-0.15} \times 10^{-3}$	

Table 3: Cutflow comparison for 700 GeV, 1000 cm, region 2018B