

1.1 2jm

- Process: $\tilde{q}\tilde{q} : \tilde{q} \rightarrow q\tilde{\chi}_1^0$.
- Parameters: mQ, mN1 = (475, 425) GeV.
- Number of Atom MC events: $1 \cdot 10^4$.
- Event Generator: MadGraph5 + Pythia6.

#	cut name	ϵ_{Exp} (%)	ϵ_{Atom} (%)	$\frac{\text{Atom}}{\text{Exp}}$	$\frac{(\text{Exp}-\text{Atom})}{\text{Error}}$	#/?	R_{Exp} (%)	R_{Atom} (%)	$\frac{\text{Atom}}{\text{Exp}}$	$\frac{(\text{Exp}-\text{Atom})}{\text{Error}}$	$\partial \log \epsilon_{\text{Atom}} / \partial \log x_{\text{cut}}$
1	MET > 160 GeV, $p_T^{j_{1,2}} > (130, 60)$ GeV	9.2 0.41	$9.83^{+0.3}_{-0.29}$	1.07	1.26	0	9.2 0.41	$9.83^{+0.3}_{-0.29}$	1.07	1.26	$2.16^{+0.18}_{0.18}$
2	$\Delta\phi > 0.4$	7.6 ± 0.38	$7.76^{+0.27}_{-0.26}$	1.02	0.35	1	82.6 ± 4.07	$78.94^{+3.6}_{-3.58}$	0.96	-0.67	$0.0^{+0.0}_{0.0}$
3	MET/ $\sqrt{H_T} > 15$	2.9 ± 0.24	$2.47^{+0.16}_{-0.15}$	0.85	-1.5	2	38.2 ± 3.12	$31.83^{+2.32}_{-2.23}$	0.83	-1.64	$5.75^{+0.57}_{0.56}$
4	$m_{\text{eff}} > 1.6$ TeV	0.5 ± 0.1	$0.19^{+0.05}_{-0.04}$	0.38	-2.79	3	17.2 ± 3.44	$7.69^{+2.04}_{-1.66}$	0.45	-2.38	$0.0^{+0.0}_{0.0}$