

Cut Name	Official Count (Eff)	MA5 Count (Eff)
MET Cleaning	190.5 (xxx)	190.5 (xxx)
No Lepton	95.9 (50%)	101.04 (53%)
NJets>2	95.8 (99%)	100.87 (99%)
$H_T > 500$	95.1 (99%)	100.01 (99%)
$\cancel{H}_T > 200$	75.4 (79%)	81.23 (81%)
Min $\Delta(\phi)$	62.3 (82%)	66.92 (82%)

Table 1: The cut flow for the baseline selection in CMS SUS-13-012 for the working point T1tttt. The second column is the official account as reported by <https://twiki.cern.ch/twiki/pub/CMSPublic/PhysicsResultsSUS13012/T1tttt.pdf>, and our own results are given in column 3. The official counts are normalized to luminosity=19.5/fb and $\sigma=10.17$ pb, and our counts are normalized to match the official count after the first cut, MET Cleaning.

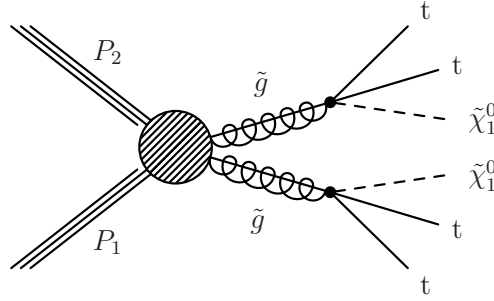


Figure 1: Diagram of the dominant SUSY production mechanism for the T1tttt working point.

Signal Region Name	Official	MA5
NJets3-5, H_T 500-800, \cancel{H}_T 200-300	0.8	0.85
NJets3-5, H_T 500-800, \cancel{H}_T 300-450	1.4	1.22
NJets3-5, H_T 500-800, \cancel{H}_T 450-600	0.8	0.85
NJets3-5, H_T 500-800, $\cancel{H}_T > 600$	0.2	0.31
NJets3-5, H_T 800-1000, \cancel{H}_T 200-300	0.5	0.45
NJets3-5, H_T 800-1000, \cancel{H}_T 300-450	0.7	1.00
NJets3-5, H_T 800-1000, \cancel{H}_T 450-600	1.0	1.03
NJets3-5, H_T 800-1000, $\cancel{H}_T > 600$	0.8	0.79
NJets3-5, H_T 1000-1250, \cancel{H}_T 200-300	0.5	0.53
NJets3-5, H_T 1000-1250, \cancel{H}_T 300-450	1.0	0.83
NJets3-5, H_T 1000-1250, \cancel{H}_T 450-600	0.8	0.87
NJets3-5, H_T 1000-1250, $\cancel{H}_T > 600$	0.9	1.01
NJets3-5, H_T 1250-1500, \cancel{H}_T 200-300	0.4	0.40
NJets3-5, H_T 1250-1500, \cancel{H}_T 300-450	0.5	0.58
NJets3-5, H_T 1250-1500, $\cancel{H}_T > 450$	0.8	0.81
NJets3-5, $H_T > 1500$, \cancel{H}_T 200-300	0.3	0.34
NJets3-5, $H_T > 1500$, $\cancel{H}_T > 300$	0.9	1.01
NJets6-7, H_T 500-800, \cancel{H}_T 200-300	0.9	0.81
NJets6-7, H_T 500-800, \cancel{H}_T 300-450	1.2	0.85
NJets6-7, H_T 500-800, $\cancel{H}_T > 450$	0.6	0.44
NJets6-7, H_T 800-1000, \cancel{H}_T 200-300	1.5	1.16
NJets6-7, H_T 800-1000, \cancel{H}_T 300-450	2.5	2.35
NJets6-7, H_T 800-1000, $\cancel{H}_T > 450$	2.5	2.59
NJets6-7, H_T 1000-1250, \cancel{H}_T 200-300	1.8	1.71
NJets6-7, H_T 1000-1250, \cancel{H}_T 300-450	3.4	3.37
NJets6-7, H_T 1000-1250, $\cancel{H}_T > 450$	4.5	5.21
NJets6-7, H_T 1250-1500, \cancel{H}_T 200-300	1.4	1.46
NJets6-7, H_T 1250-1500, \cancel{H}_T 300-450	2.2	2.43
NJets6-7, H_T 1250-1500, $\cancel{H}_T > 450$	2.8	3.34
NJets6-7, $H_T > 1500$, \cancel{H}_T 200-300	1.1	1.16
NJets6-7, $H_T > 1500$, $\cancel{H}_T > 300$	3.4	3.99
NJets >7 , H_T 500-800, $\cancel{H}_T > 200$	0.2	0.15
NJets >7 , H_T 800-1000, $\cancel{H}_T > 200$	1.9	1.69
NJets >7 , H_T 1000-1250, $\cancel{H}_T > 200$	5.7	6.37
NJets >7 , H_T 1250-1500, $\cancel{H}_T > 200$	5.9	7.28
NJets >7 , $H_T > 1500$, $\cancel{H}_T > 200$	6.0	7.53

Table 2: The signal region (SR) counts in CMS SUS-13-012 for the working point T1qqqq after all selection has been applied. Column 2 is the official account obtained through generous correspondence with Christian Sanders, and our own results displayed in column 3. These counts were determined by applying the SR selection to the end of the cut flow featured in table 1.

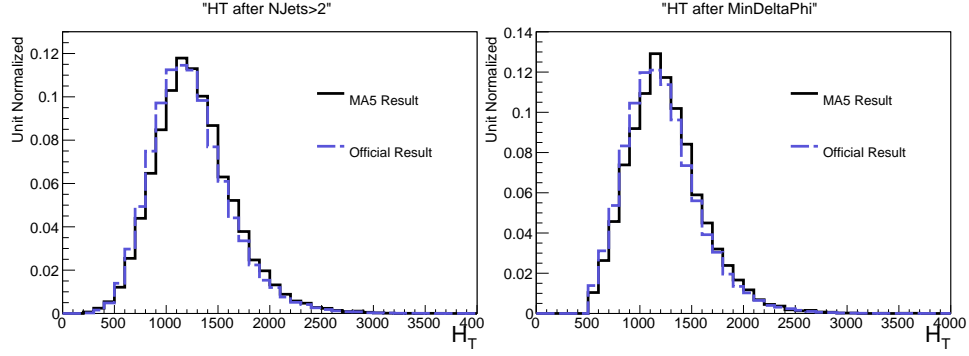


Figure 2: Comparison of the distributions of H_T between the official and our own samples after the “n-1” cut, $\text{Min } \Delta(\phi)$ (left), and after all baseline cuts (right), for the T1tttt working point.

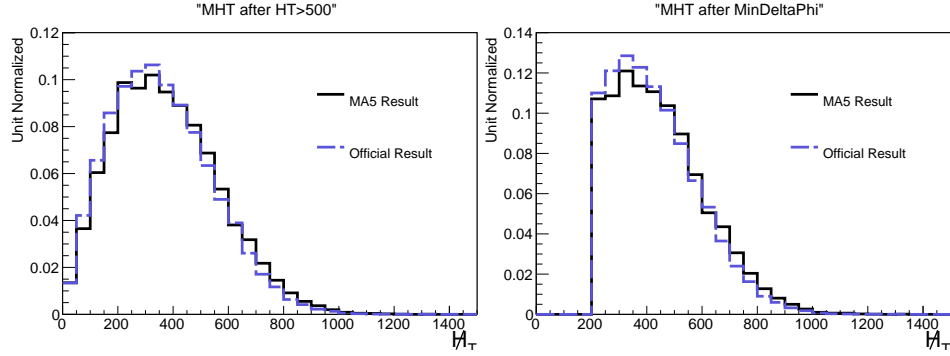


Figure 3: Comparison of the distributions of H_T between the official and our own samples after the “n-1” cut, $\text{Min } \Delta(\phi)$ (left), and after all baseline cuts (right), for the T1tttt working point.

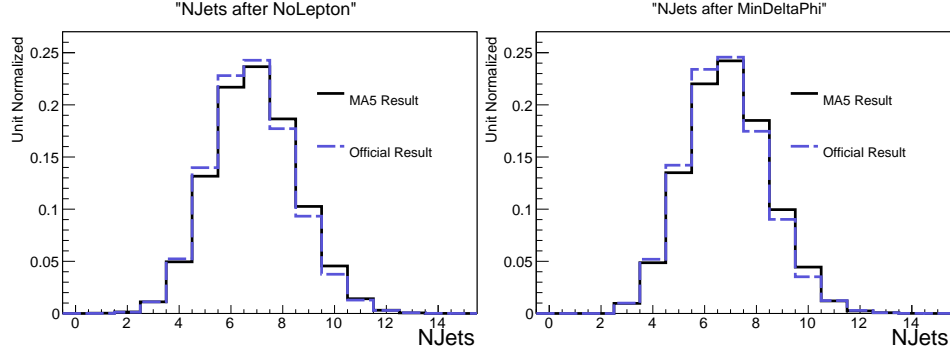


Figure 4: Comparison of the distributions of NJets between the official and our own samples after the “n-1” cut, $\text{Min } \Delta(\phi)$ (left), and after all baseline cuts (right), for the T1tttt working point.

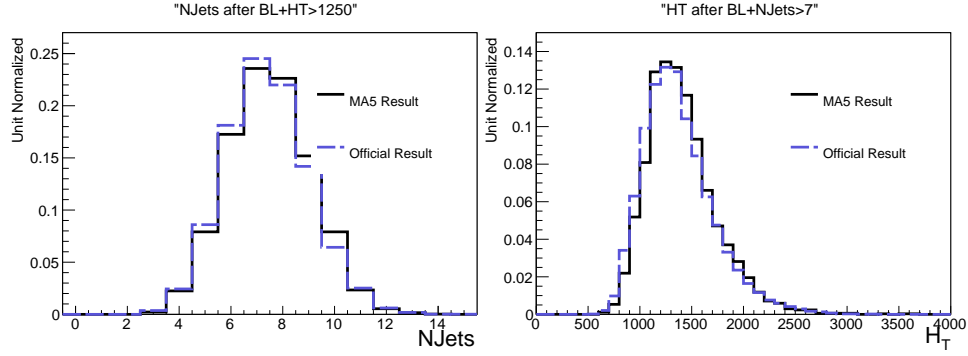


Figure 5: Additional checks: comparison between ours and the official distributions of NJets after $\text{BL}+H_T>1250$ cuts (left), and H_T after $\text{BL}+\text{NJets}>7$ cuts (right), for the T1tttt working point.