

## **5 GeV (10%)**

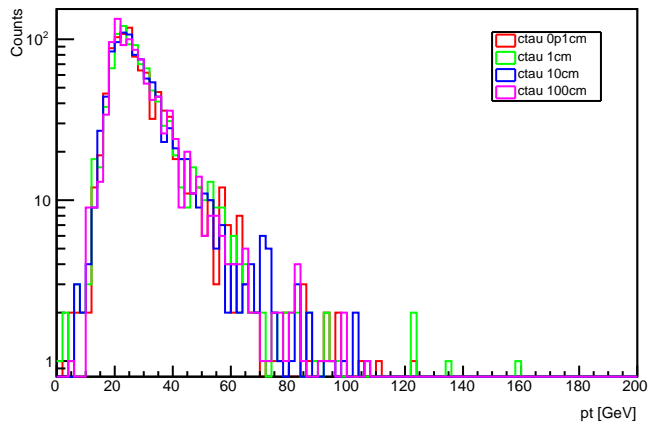
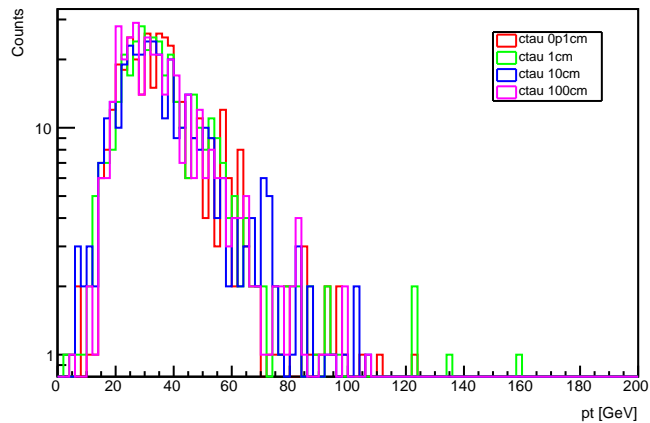
**nevents ctau 0p1cm: 1000(c1:364,c2:1,c3:2,c4:1)**

**nevents ctau 1cm: 1000(c1:373,c2:4,c3:2,c4:3)**

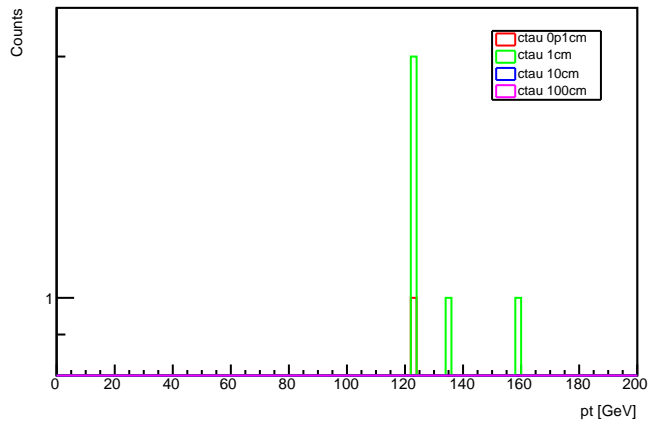
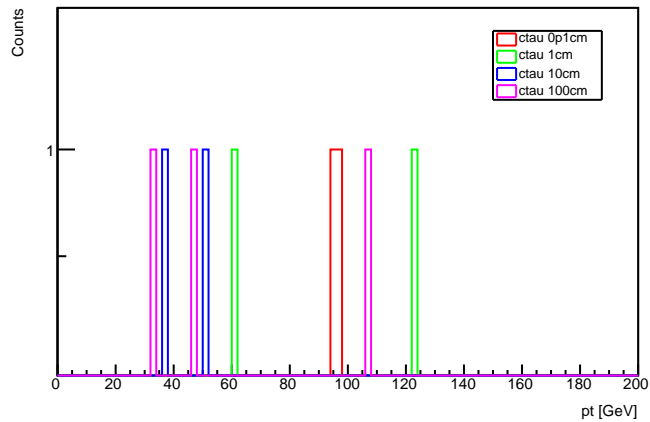
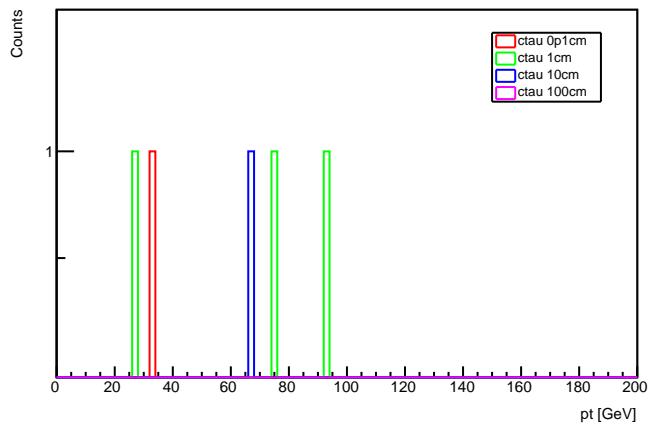
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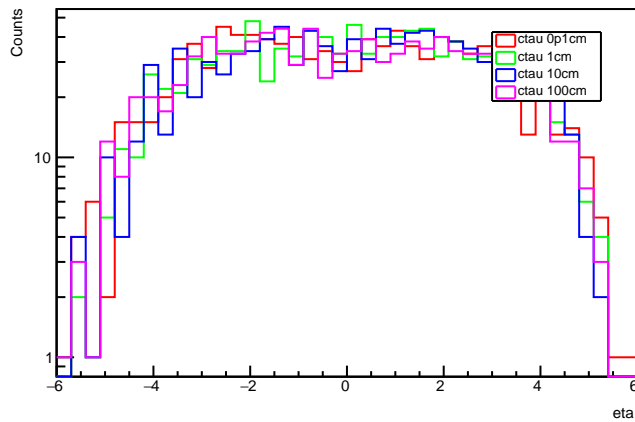
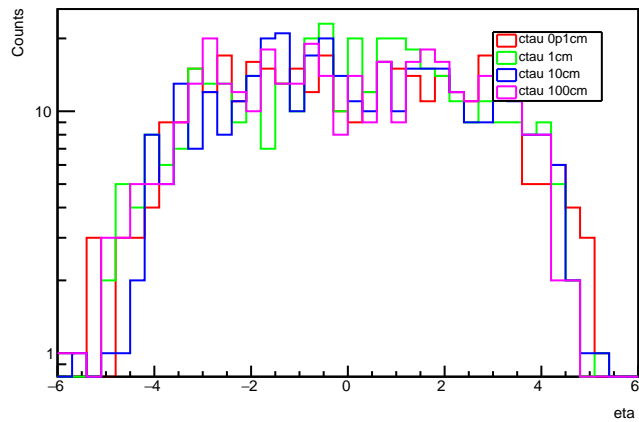
gen leading MET: no cuts

gen leading MET:  $n_{\text{jet}} \geq 1$ ,  $j1pt > 30$  GeV

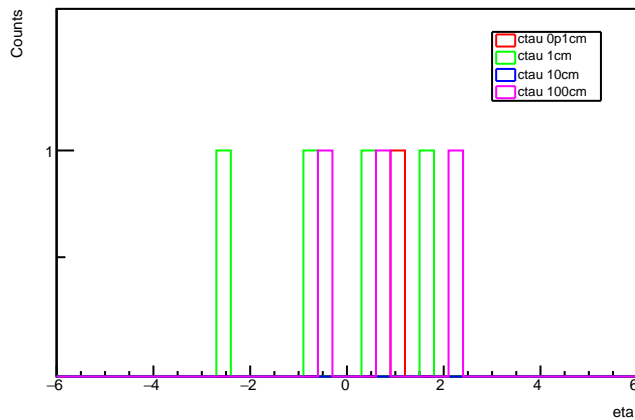
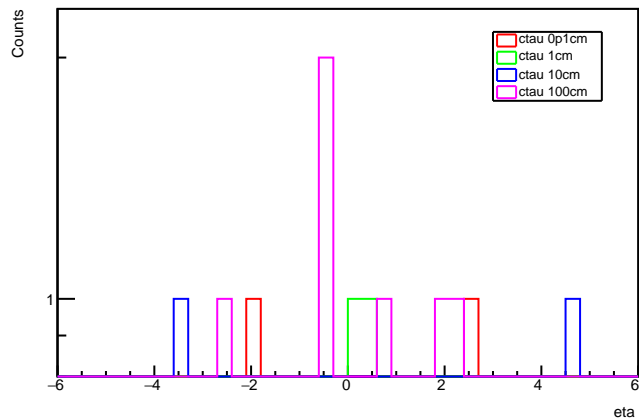
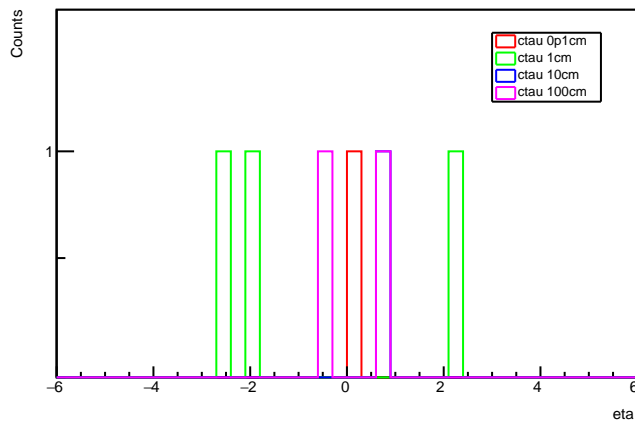
gen leading MET: MET &gt; 120 GeV

gen leading MET:  $j1pt > 120$ , at most 2 jets w/  $pt > 30$  GeVgen leading MET: at least 2 mu w/  $pt > 2$  GeV and  $\eta < 2.5$ 

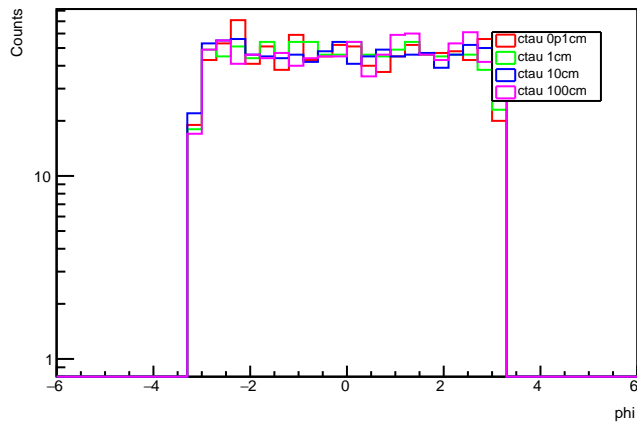
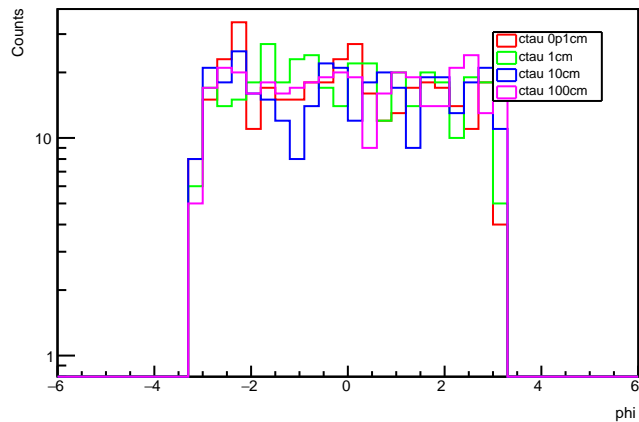
gen leading Met eta: no cuts

gen leading Met eta:  $n_{\text{jet}} \geq 1$ ,  $j_{1\text{pt}} > 30$  GeV

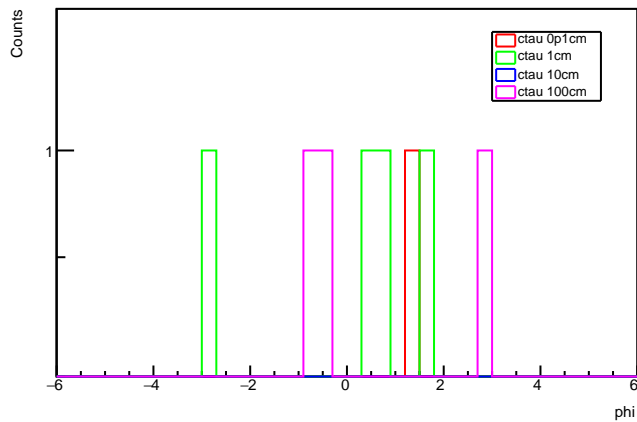
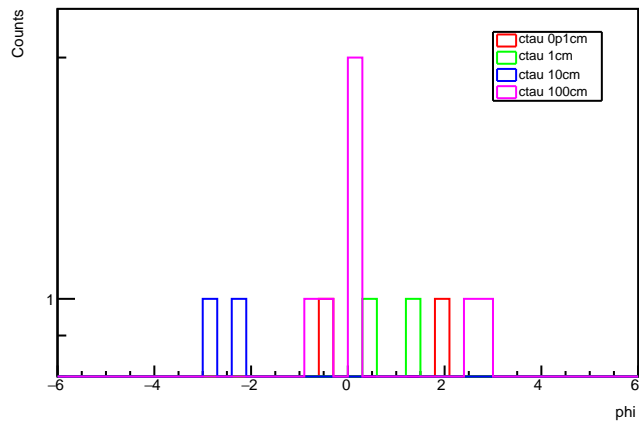
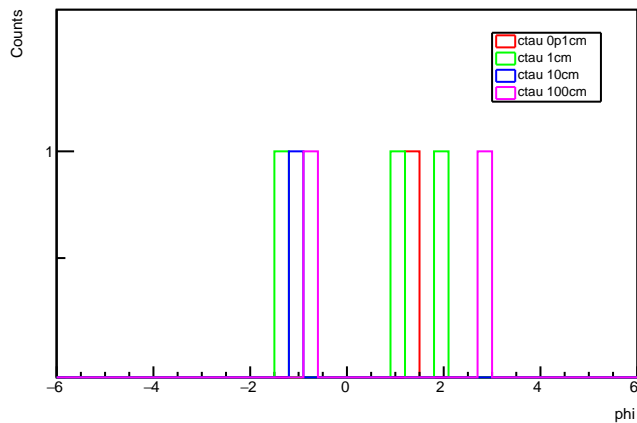
gen leading Met eta: MET &gt; 120 GeV

gen leading Met eta:  $j_{1\text{pt}} > 120$ , at most 2 jets w/  $p_t > 30$  GeVgen leading Met eta: at least 2 mu w/  $p_t > 2$  GeV and  $\eta < 2.5$ 

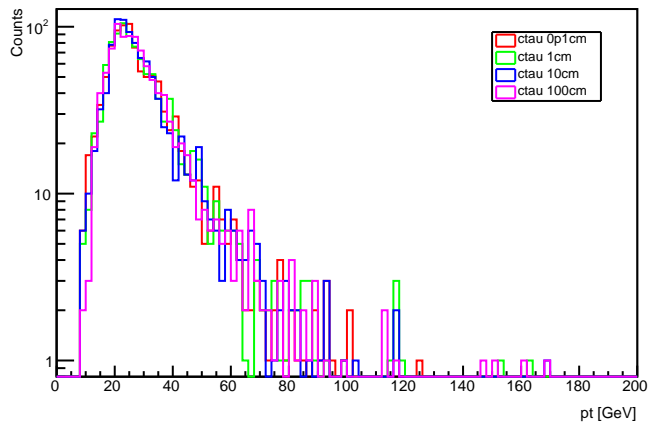
gen leading Met phi: no cuts

gen leading Met phi:  $n_{\text{jet}} \geq 1$ ,  $j_{1\text{pt}} > 30$  GeV

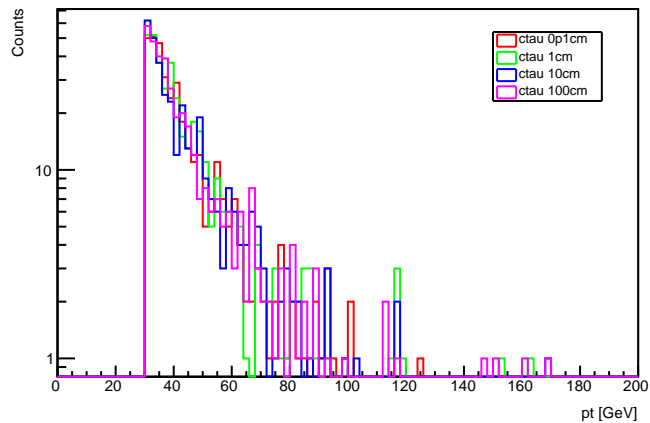
gen leading Met phi: MET &gt; 120 GeV

gen leading Met phi:  $j_{1\text{pt}} > 120$ , at most 2 jets w/  $p_t > 30$  GeVgen leading Met phi: at least 2 mu w/  $p_t > 2$  GeV and  $\eta < 2.5$ 

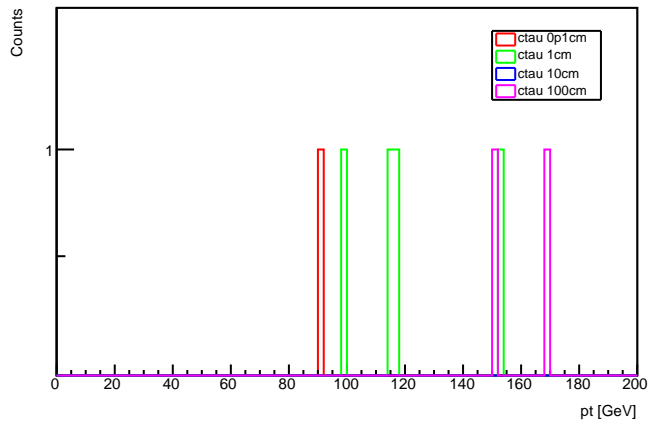
gen leading Jet pt: no cuts



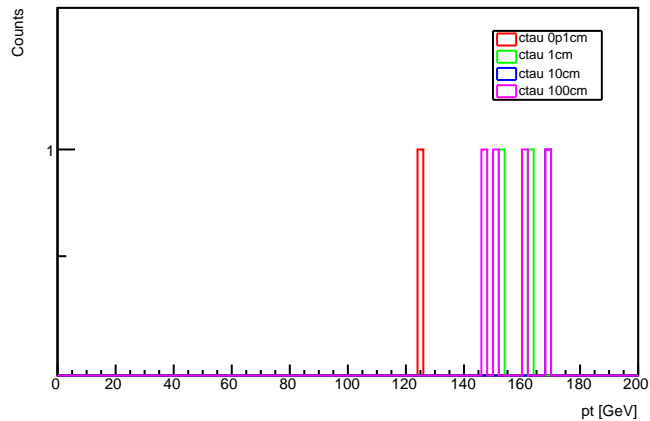
gen leading Jet pt: n\_jet &gt;=1, j1pt &gt; 30 GeV



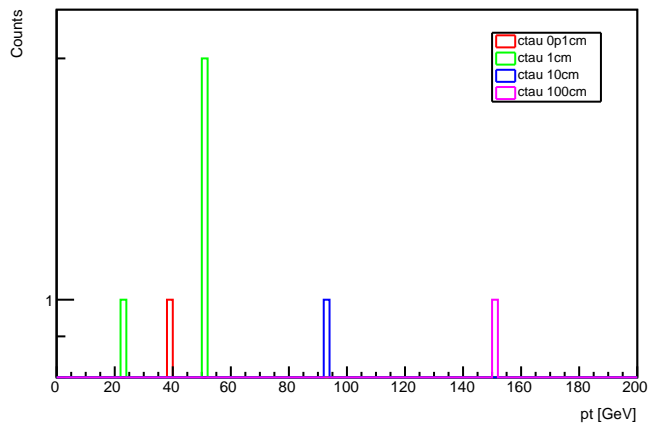
gen leading Jet pt: MET &gt; 120 GeV



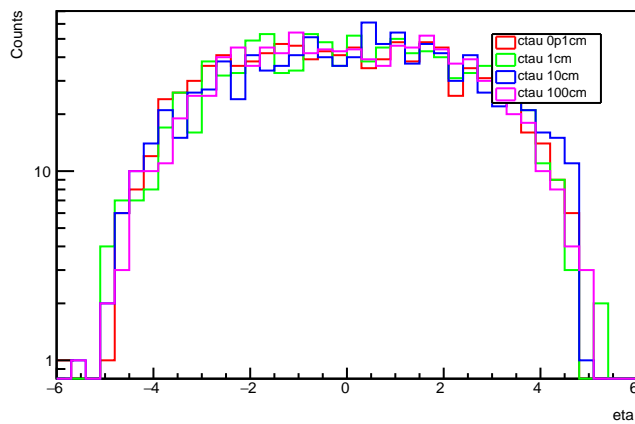
gen leading Jet pt: j1pt &gt;120, at most 2 jets w/ pt &gt;30 GeV



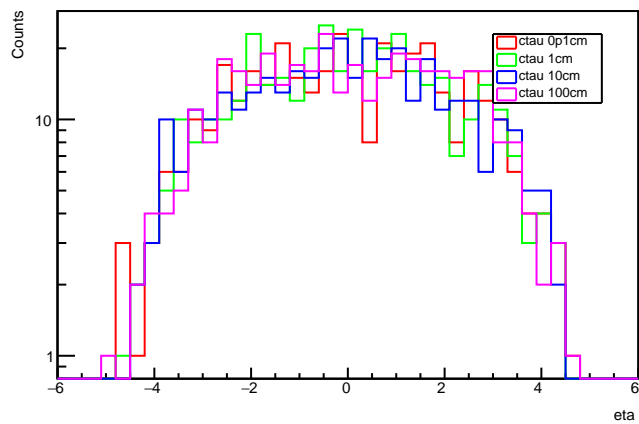
gen leading Jet pt: at least 2 mu w/ pt &gt; 2 GeV and eta&lt;2.5



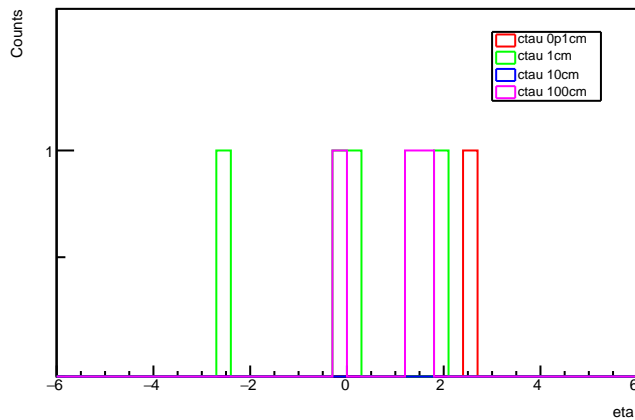
gen leading Jet eta: no cuts



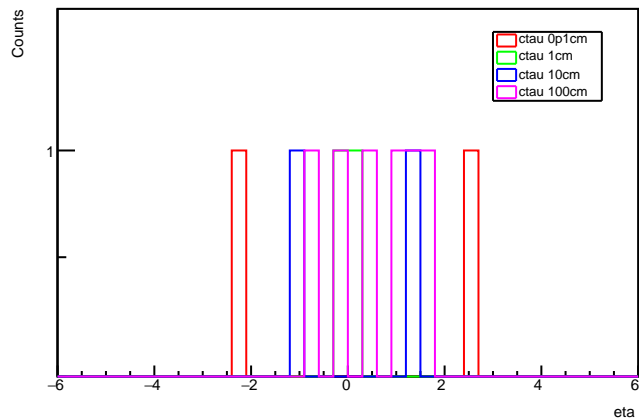
gen leading Jet eta: n\_jet &gt;=1, j1pt &gt; 30 GeV



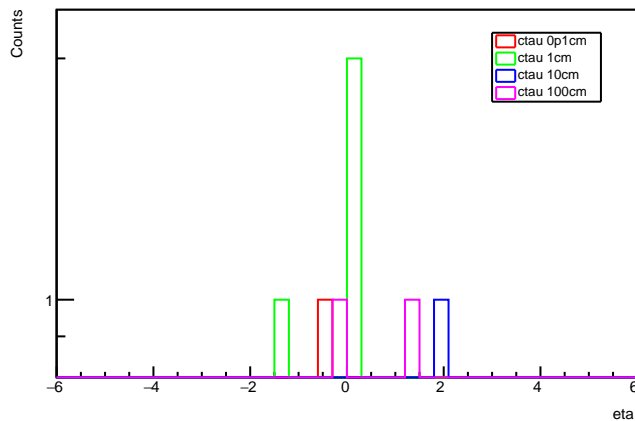
gen leading Jet eta: MET &gt; 120 GeV



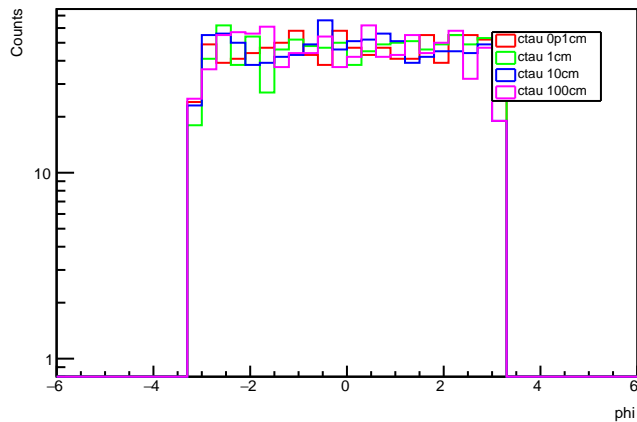
gen leading Jet eta: j1pt &gt;120, at most 2 jets w/ pt &gt;30 GeV



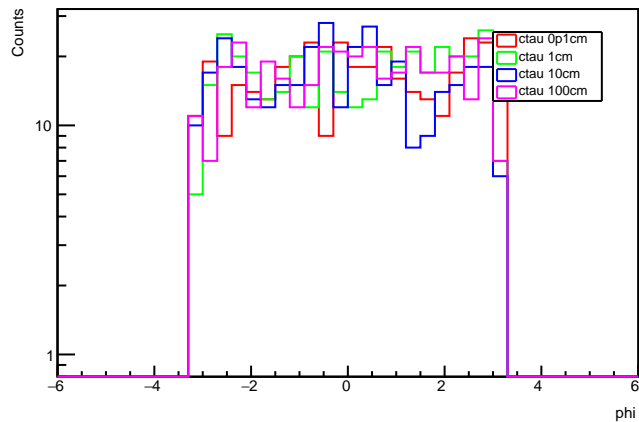
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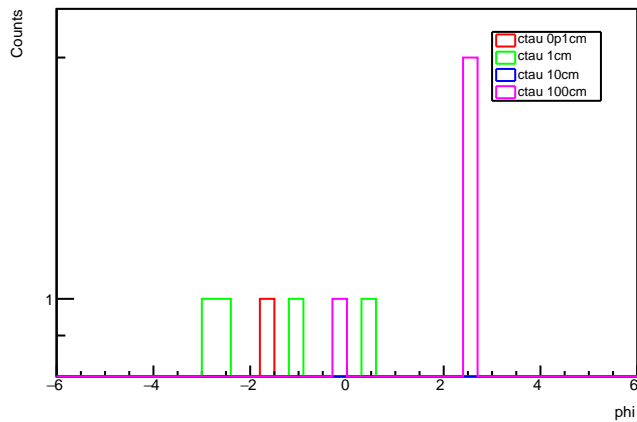
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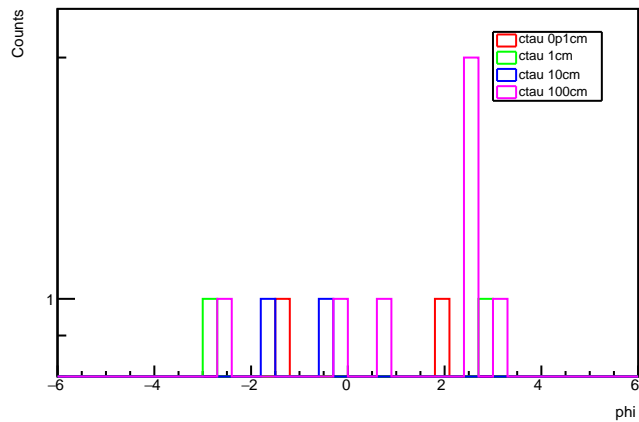
gen leading Jet phi: n\_jet &gt;=1, j1pt &gt; 30 GeV



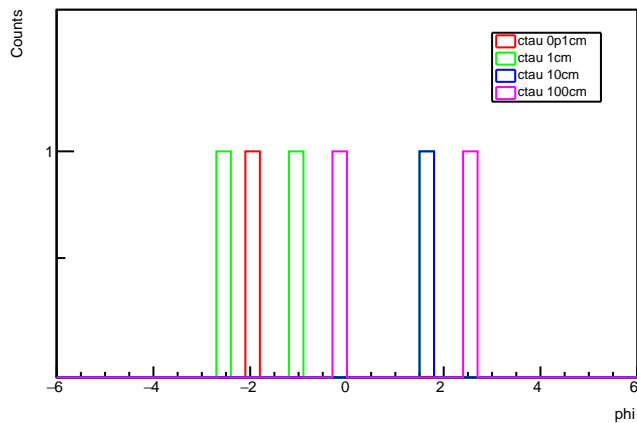
gen leading Jet phi: MET &gt; 120 GeV



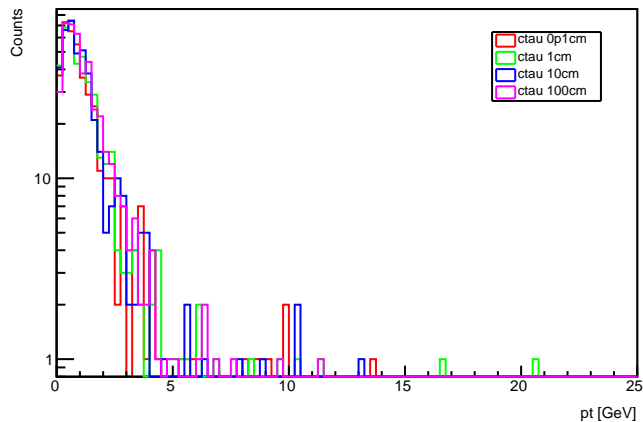
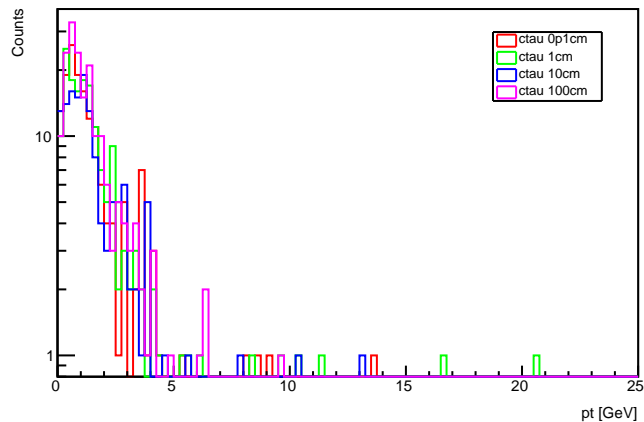
gen leading Jet phi: j1pt &gt;120, at most 2 jets w/ pt &gt;30 GeV



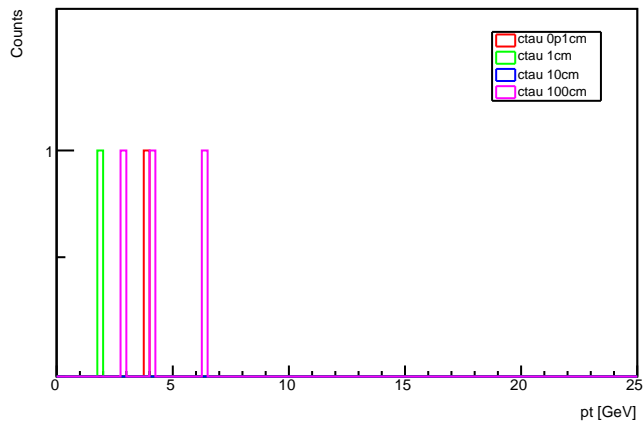
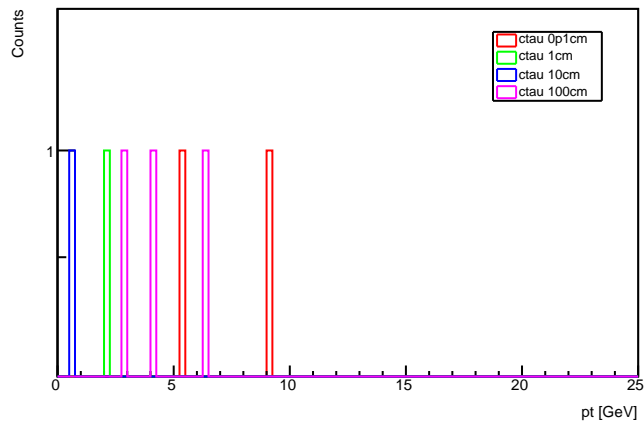
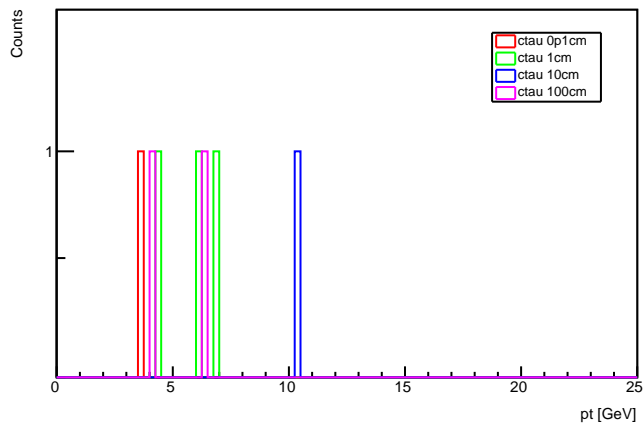
gen leading Jet phi: at least 2 mu w/ pt &gt; 2 GeV and eta&lt;2.5



gen leading Mu pt: no cuts

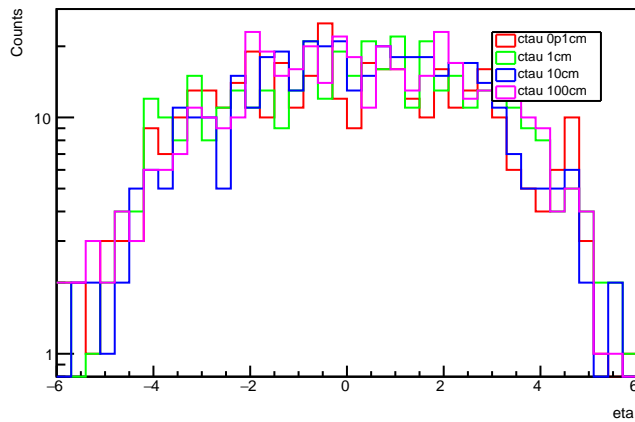
gen leading Mu pt:  $n_{\text{jet}} \geq 1$ ,  $j_{1\text{pt}} > 30$  GeV

gen leading Mu pt: MET &gt; 120 GeV

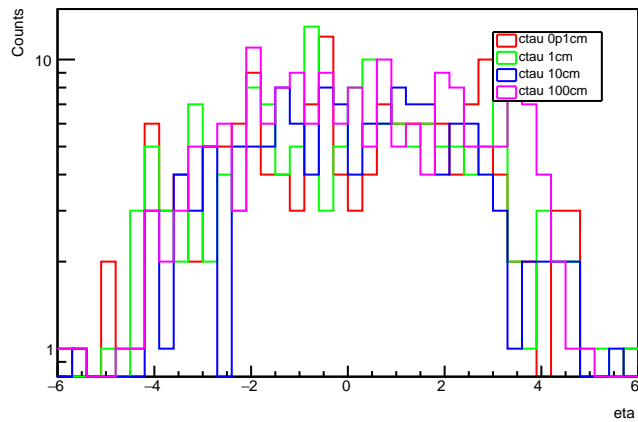
gen leading Mu pt:  $j_{1\text{pt}} > 120$ , at most 2 jets w/  $p_{\text{T}} > 30$  GeVgen leading Mu pt: at least 2 mu w/  $p_{\text{T}} > 2$  GeV and  $\eta < 2.5$ 



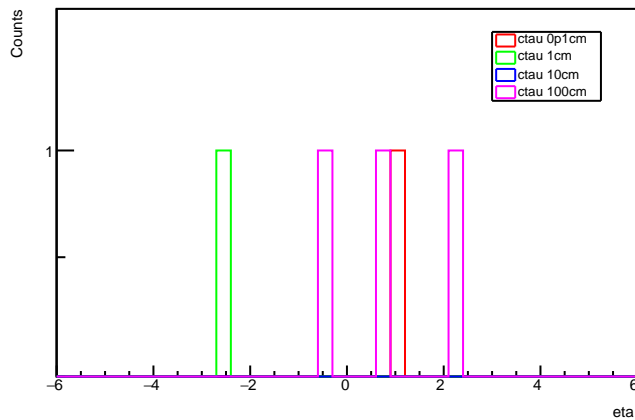
gen leading Mu eta: no cuts



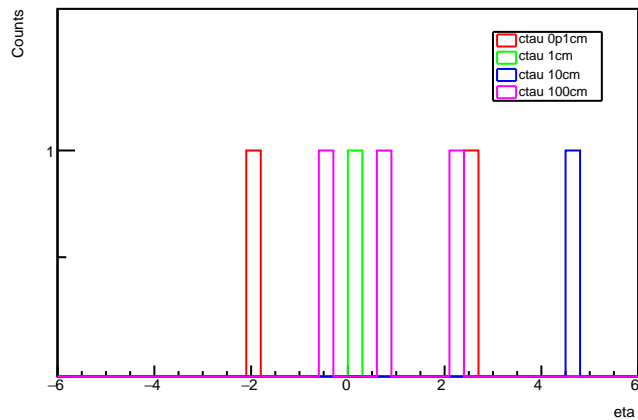
gen leading Mu eta: n\_jet &gt;=1, j1pt &gt; 30 GeV



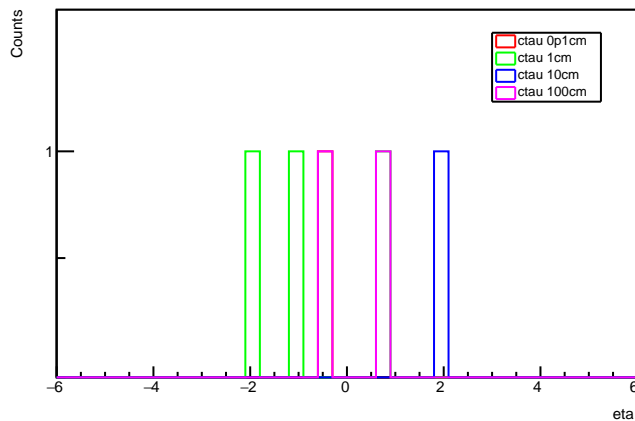
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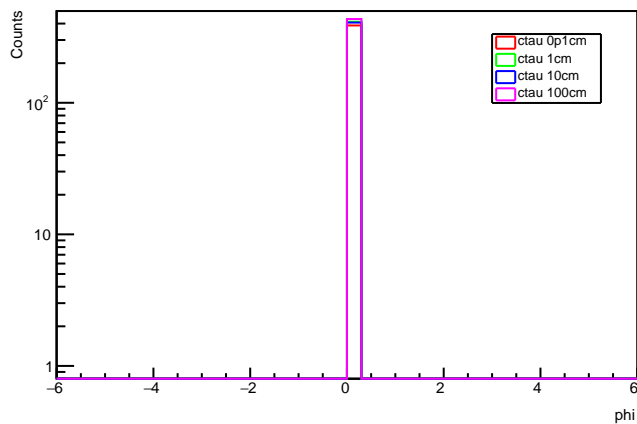
gen leading Mu eta: j1pt &gt;120, at most 2 jets w/ pt &gt;30 GeV



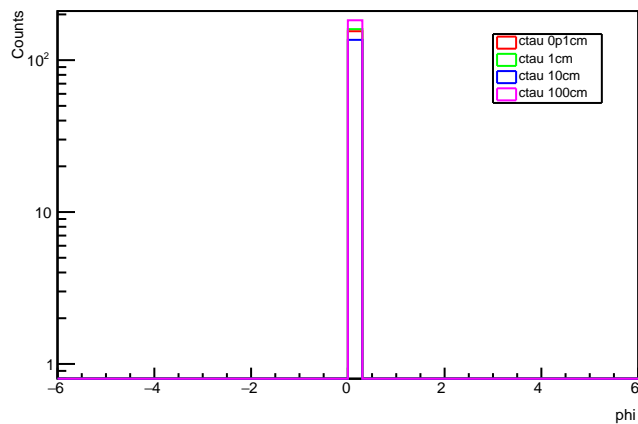
gen leading Mu eta: at least 2 mu w/ pt &gt; 2 GeV and eta&lt;2.5



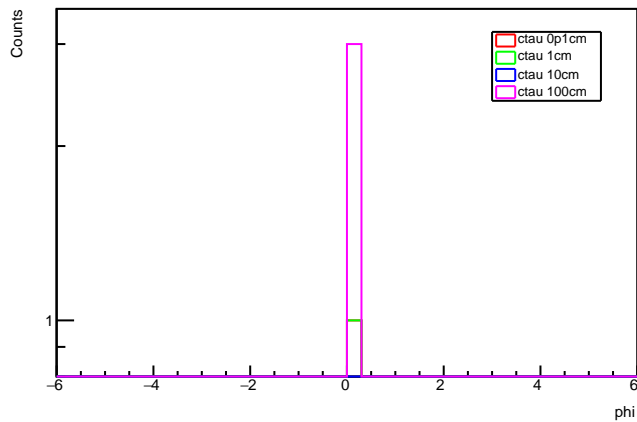
gen leading Mu phi: no cuts



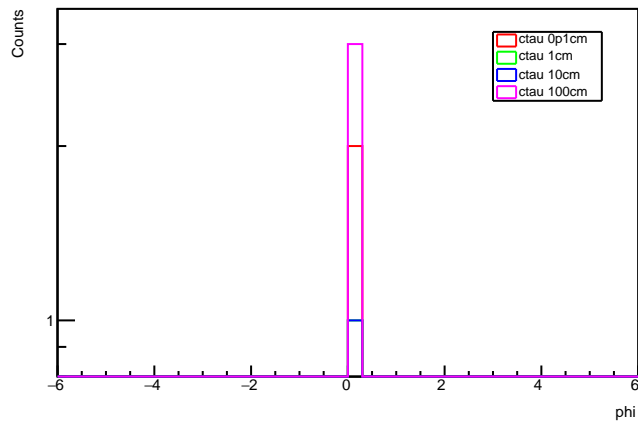
gen leading Mu phi: n\_jet &gt;=1, j1pt &gt; 30 GeV



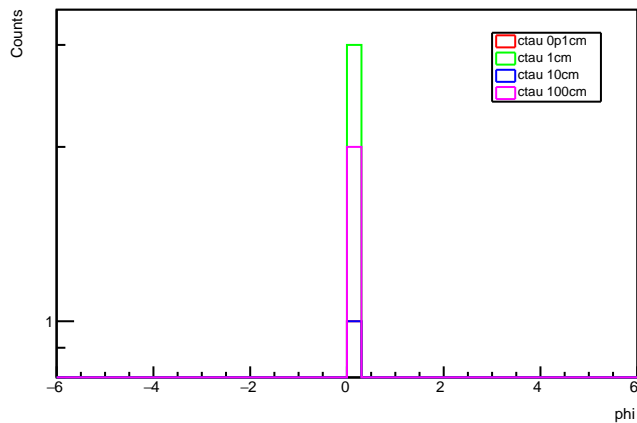
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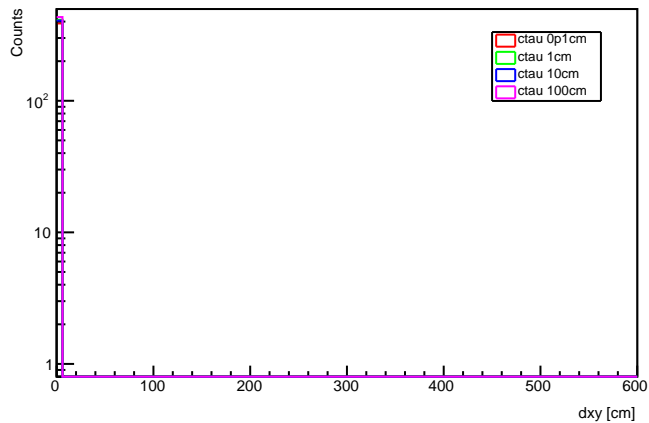
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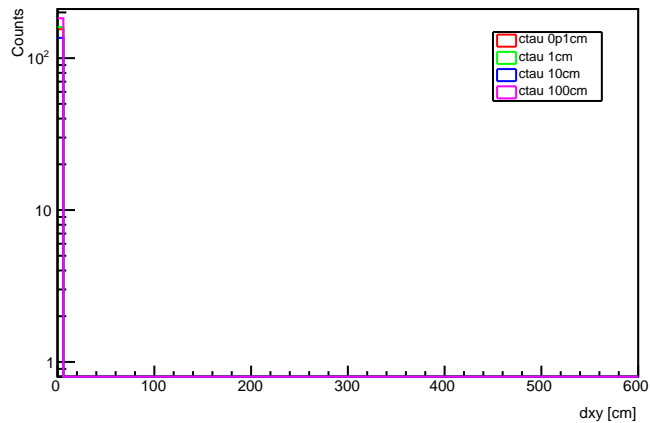
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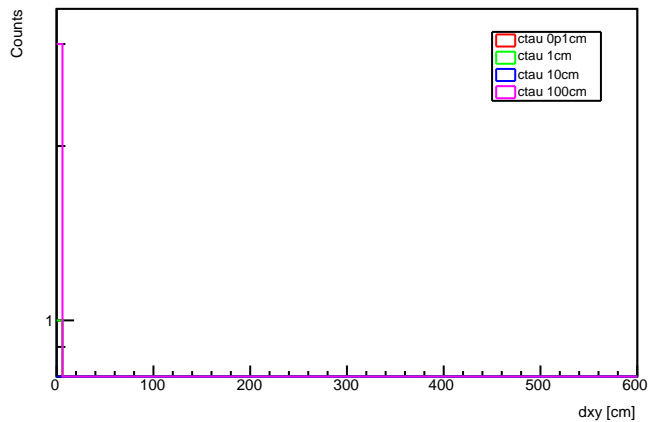
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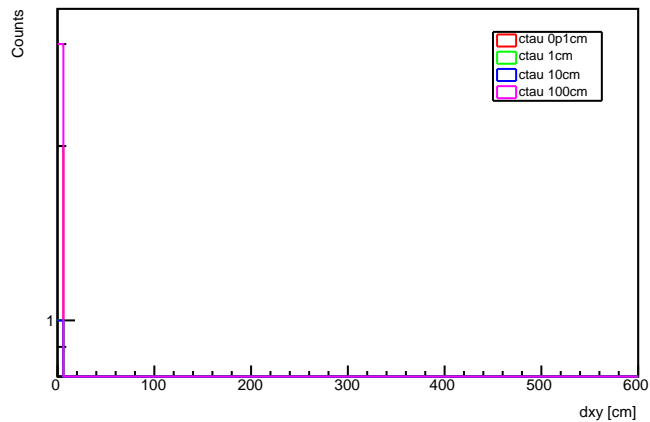
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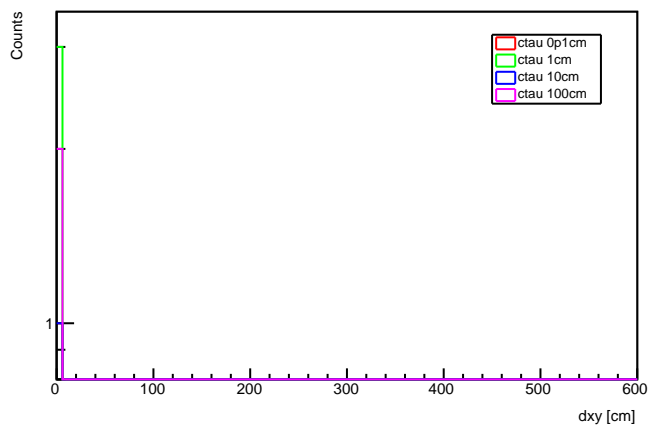
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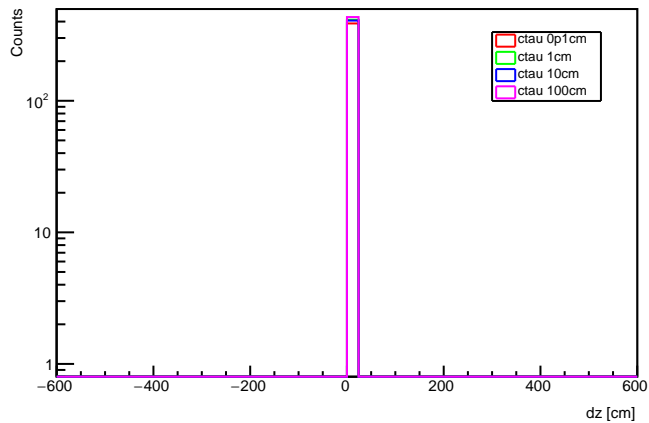
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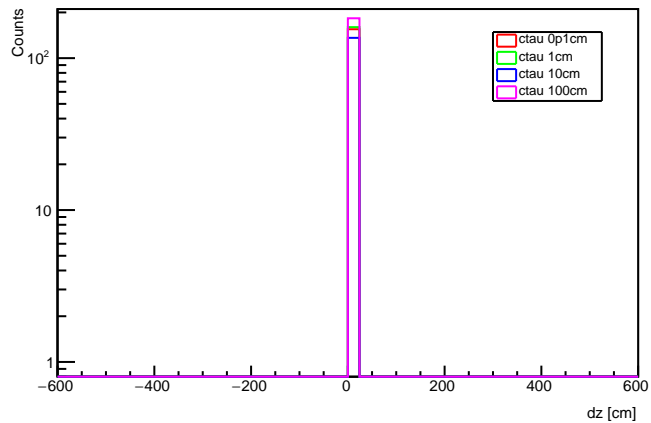
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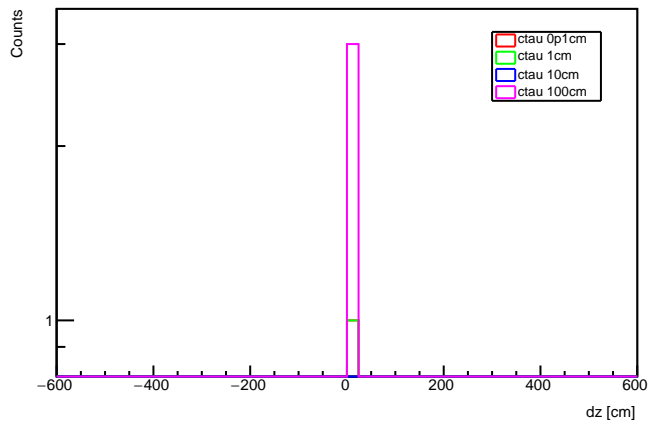
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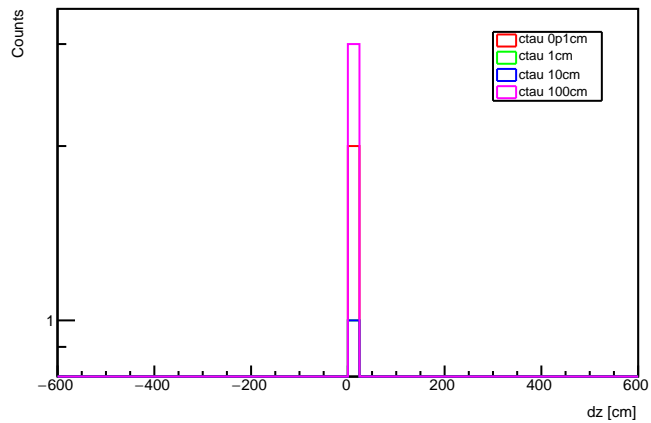
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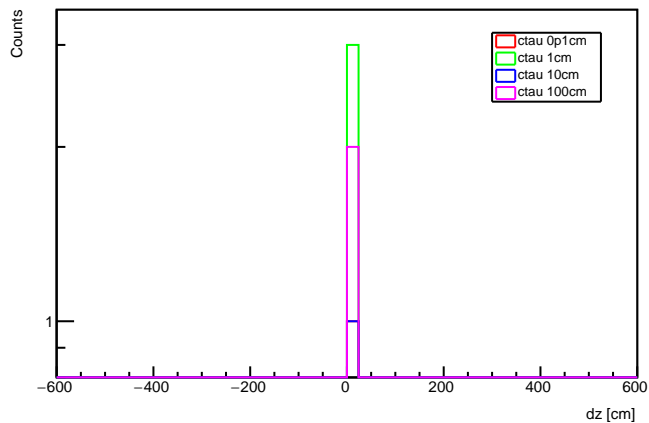
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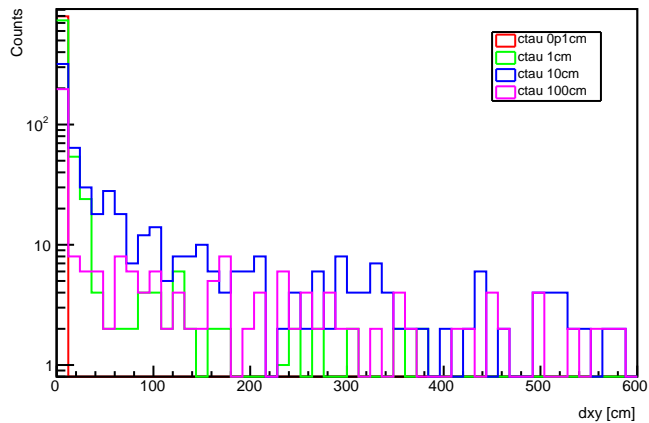
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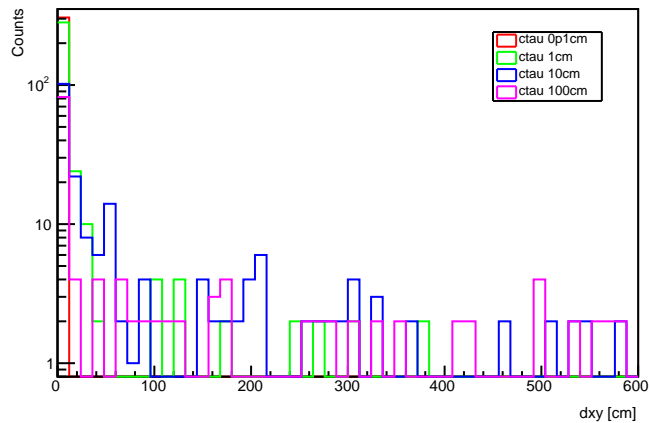
gen leading Mu vz: at least 2 mu w/ pt &gt; 2 GeV and eta&lt;2.5



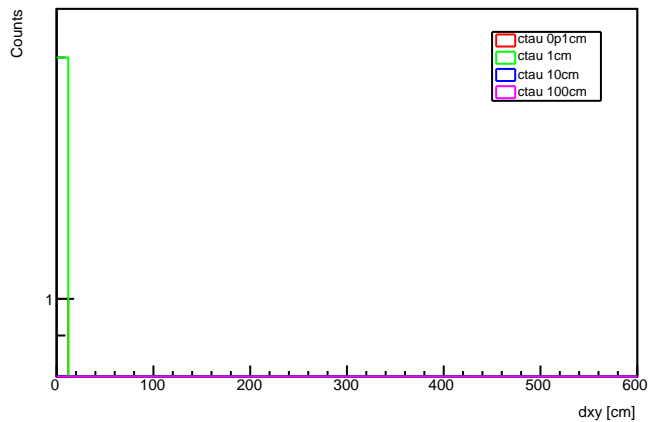
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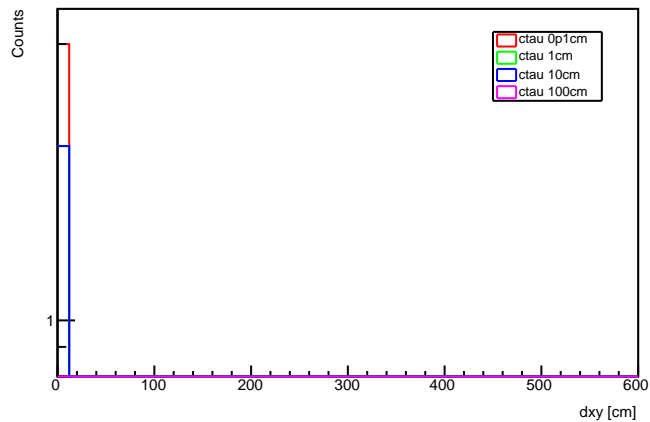
gen all Mu vxy: n\_jet &gt;=1, j1pt &gt; 30 GeV



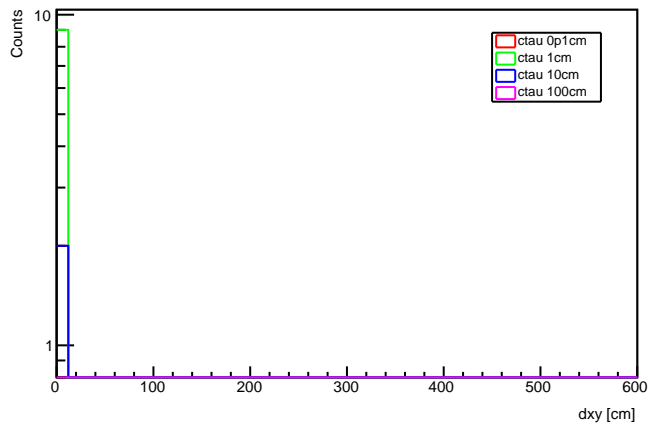
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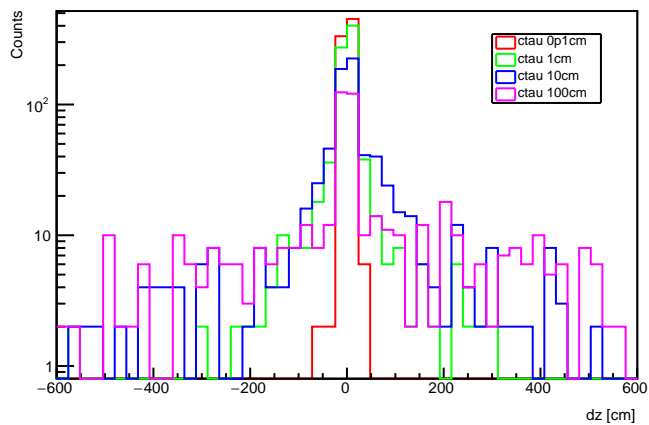
gen all Mu vxy: j1pt &gt;120, at most 2 jets w/ pt &gt;30 GeV



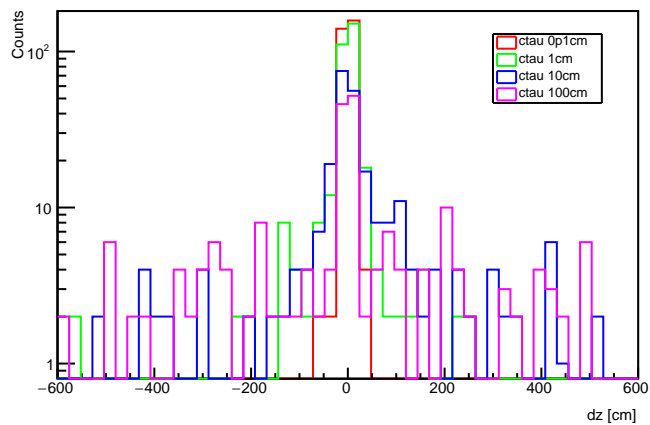
gen all Mu vxy: at least 2 mu w/ pt &gt; 2 GeV and eta&lt;2.5



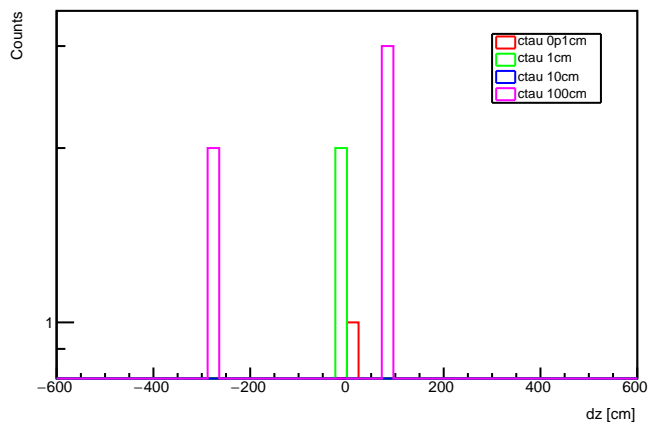
gen all Mu vz: no cuts



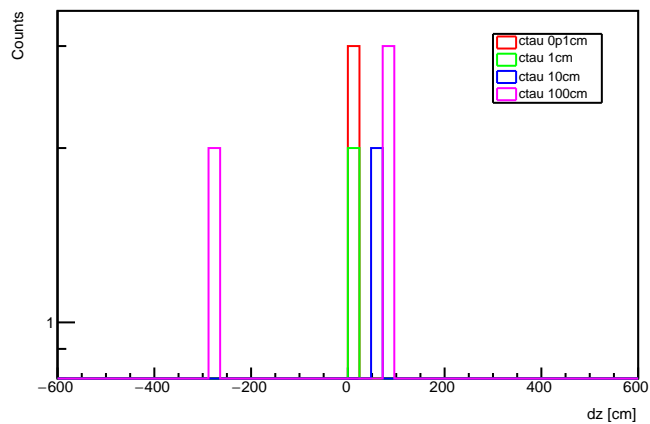
gen all Mu vz: n\_jet &gt;=1, j1pt &gt; 30 GeV



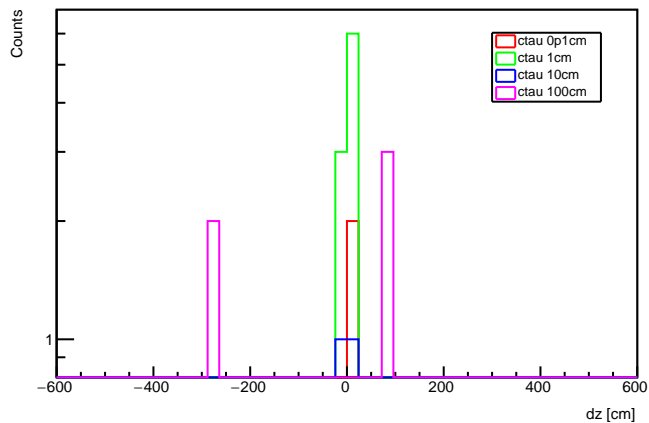
gen all Mu vz: MET &gt; 120 GeV



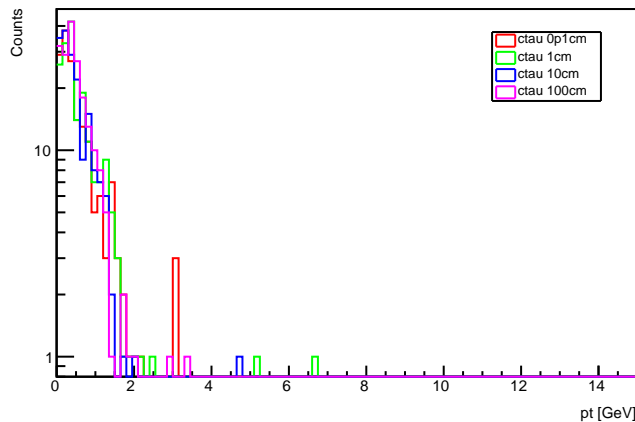
gen all Mu vz: j1pt &gt;120, at most 2 jets w/ pt &gt;30 GeV



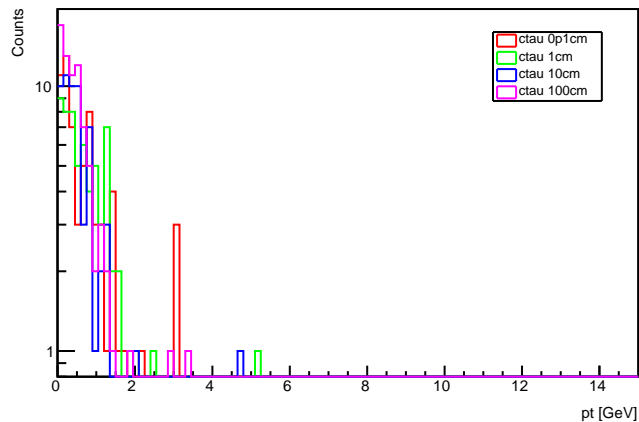
gen all Mu vz: at least 2 mu w/ pt &gt; 2 GeV and eta &lt; 2.5



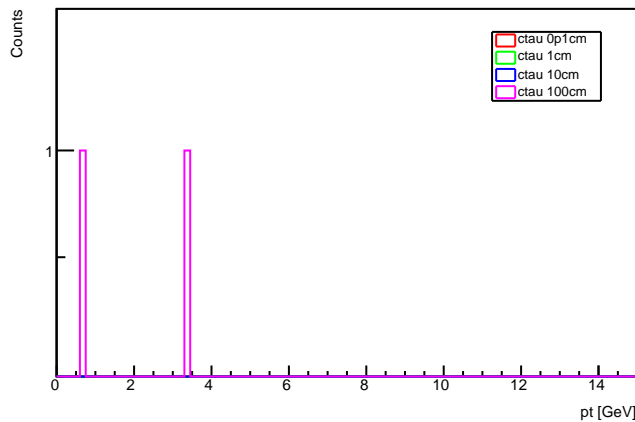
gen subleading Mu pt: no cuts



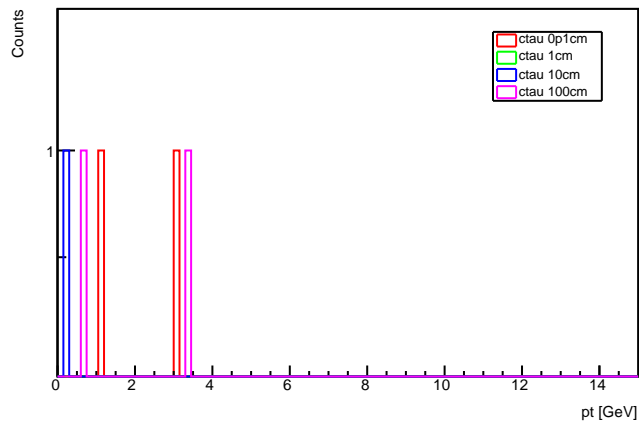
gen subleading Mu pt: n\_jet &gt;=1, j1pt &gt; 30 GeV



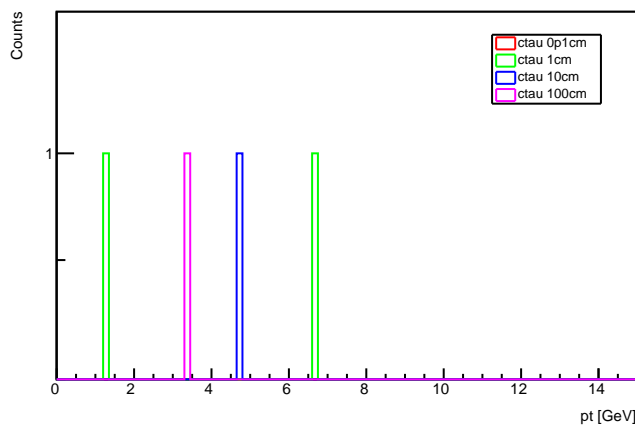
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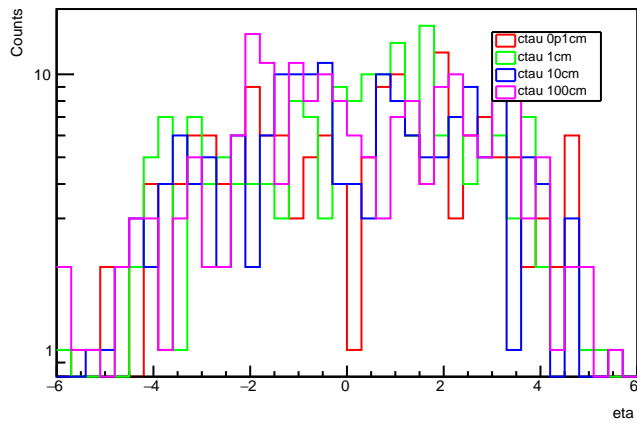
gen subleading Mu pt: j1pt &gt;120, at most 2 jets w/ pt &gt;30 GeV



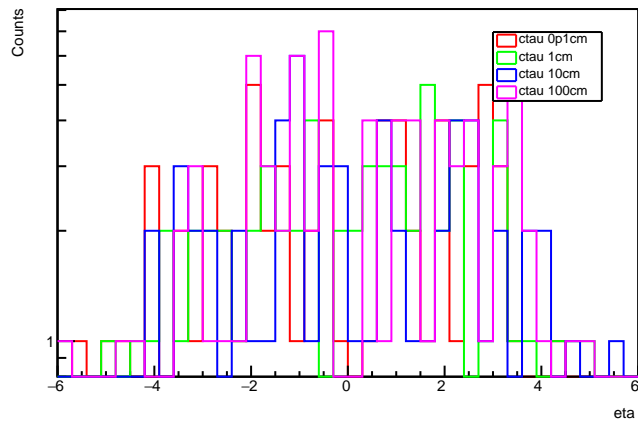
gen subleading Mu pt: at least 2 mu w/ pt &gt; 2 GeV and eta&lt;2.5



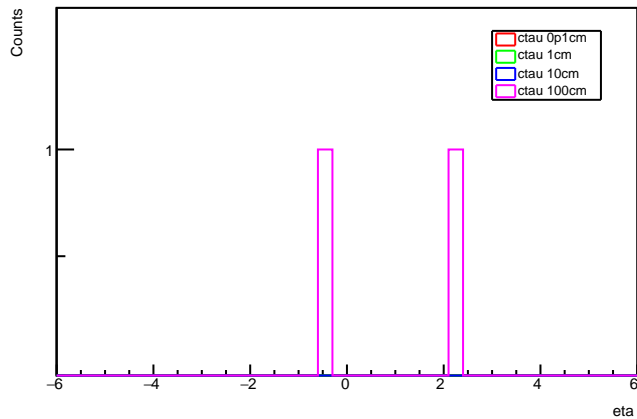
gen subleading Mu eta: no cuts



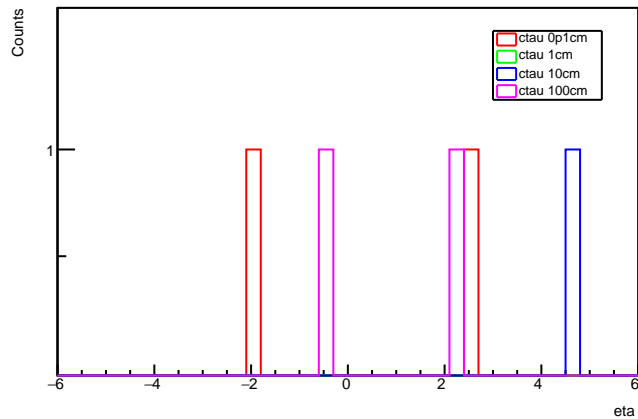
gen subleading Mu eta: n\_jet &gt;=1, j1pt &gt; 30 GeV



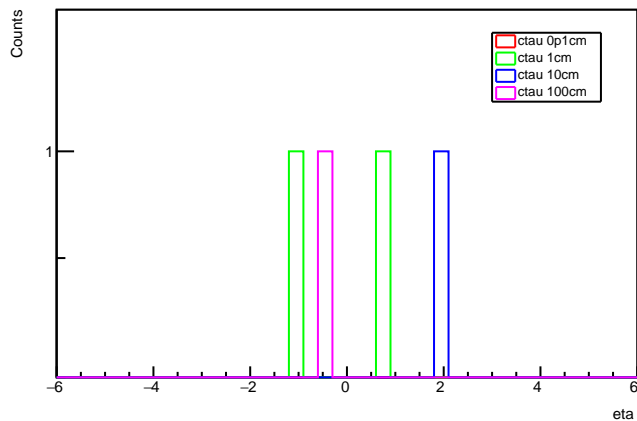
gen subleading Mu eta: MET &gt; 120 GeV



gen subleading Mu eta: j1pt &gt;120, at most 2 jets w/ pt &gt;30 GeV

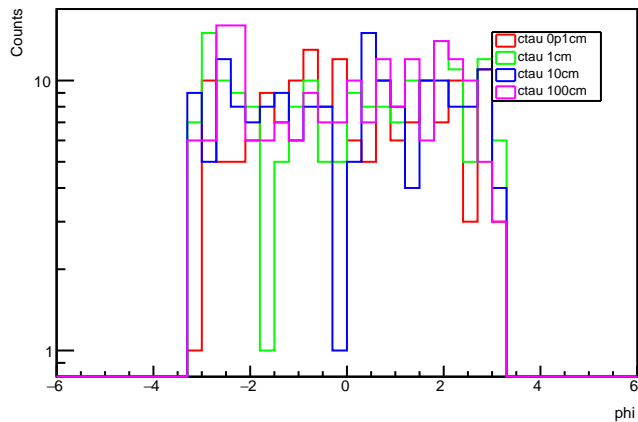
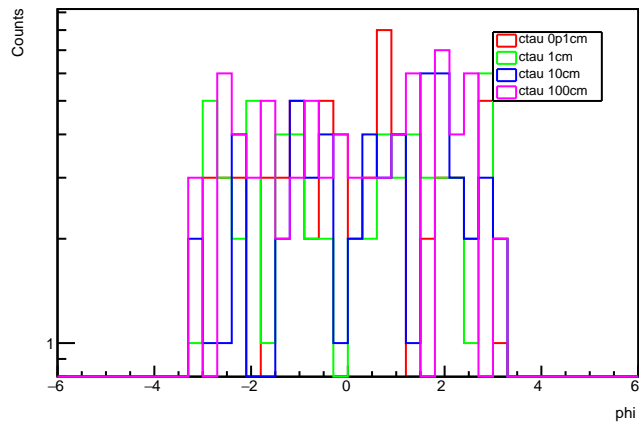
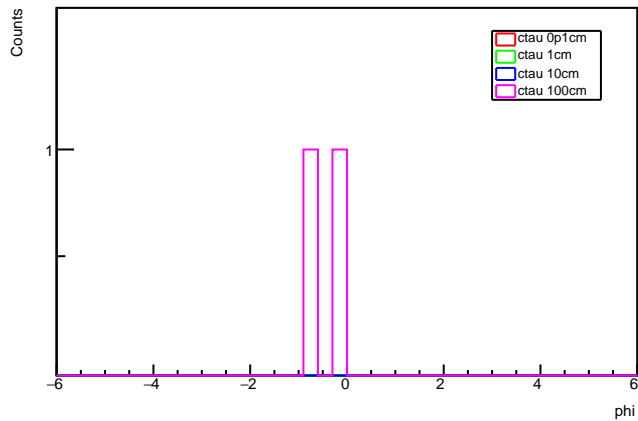
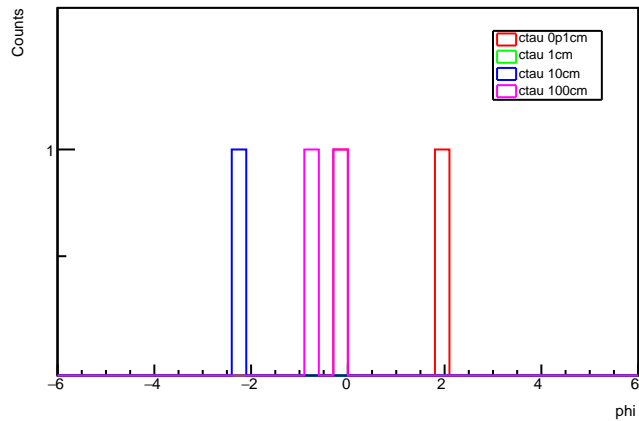
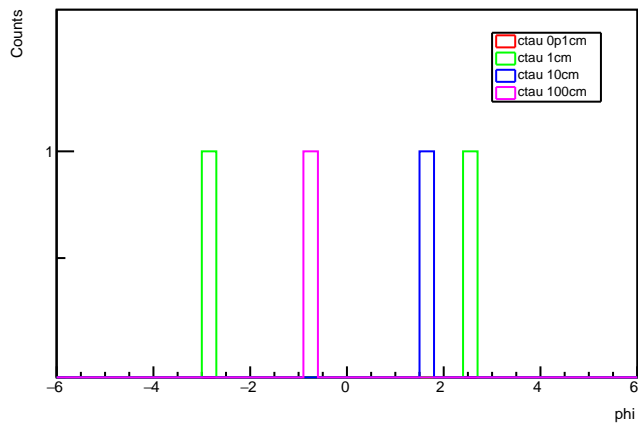


gen subleading Mu eta: at least 2 mu w/ pt &gt; 2 GeV and eta&lt;2.5

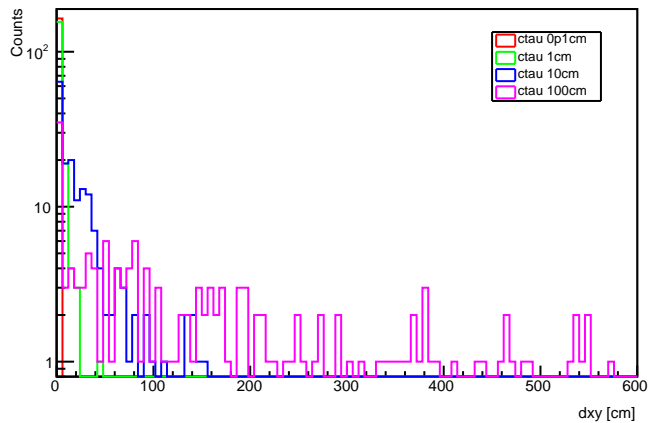
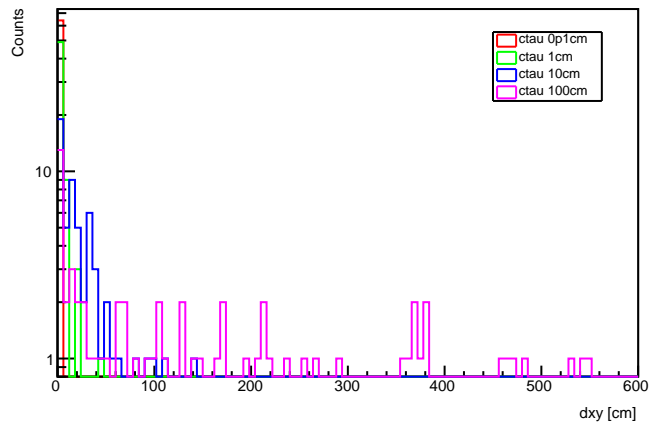




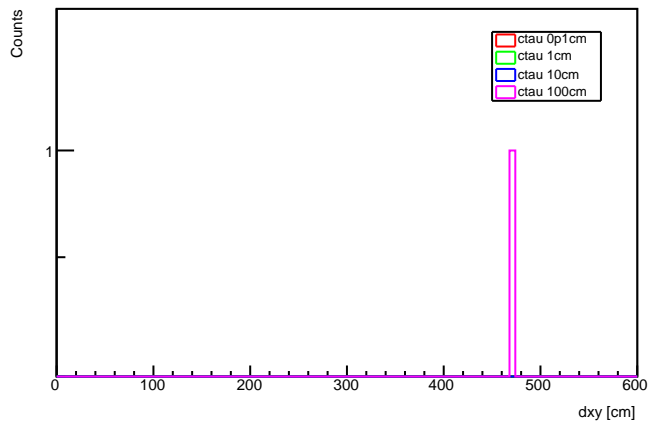
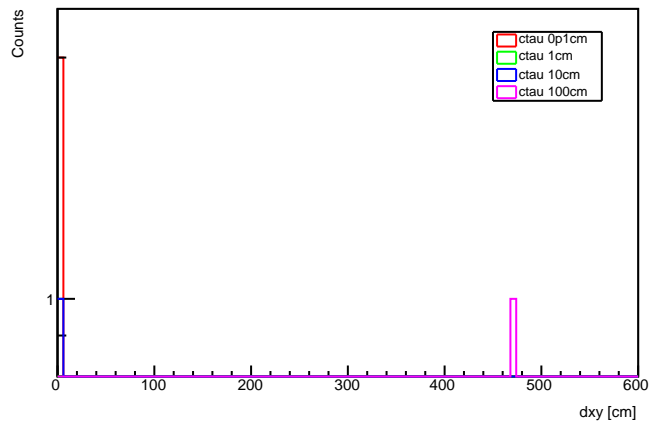
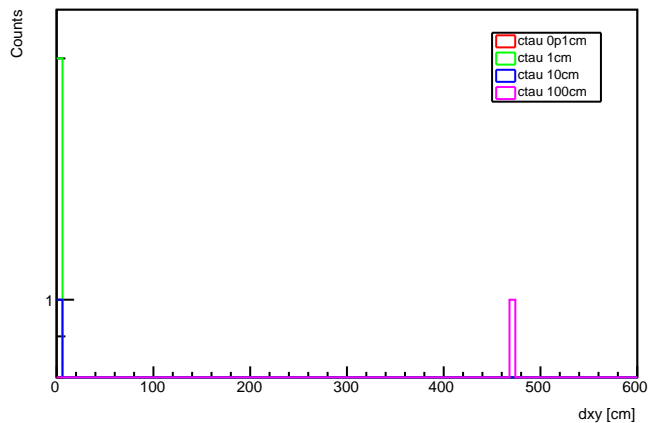
gen subleading Mu phi: no cuts

gen subleading Mu phi:  $n_{\text{jet}} \geq 1$ ,  $j_{1\text{pt}} > 30\text{ GeV}$ gen subleading Mu phi:  $\text{MET} > 120\text{ GeV}$ gen subleading Mu phi:  $j_{1\text{pt}} > 120$ , at most 2 jets w/  $p_T > 30\text{ GeV}$ gen subleading Mu phi: at least 2 mu w/  $p_T > 2\text{ GeV}$  and  $\eta < 2.5$ 

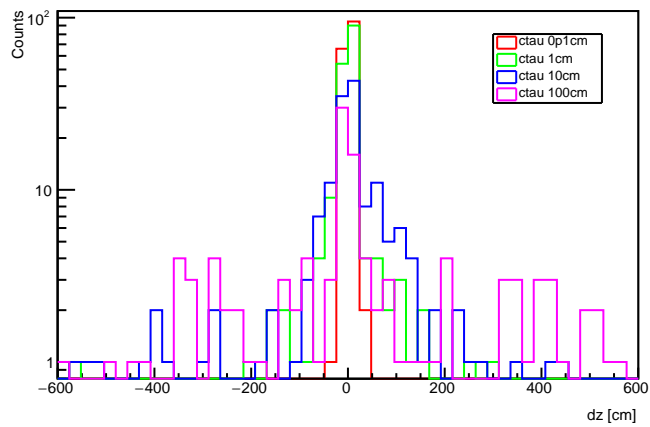
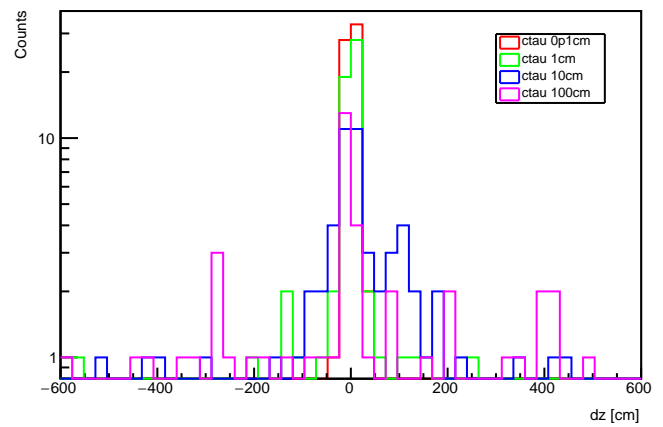
gen subleading Mu vxy: no cuts

gen subleading Mu vxy:  $n_{\text{jet}} \geq 1$ ,  $j1_{\text{pt}} > 30$  GeV

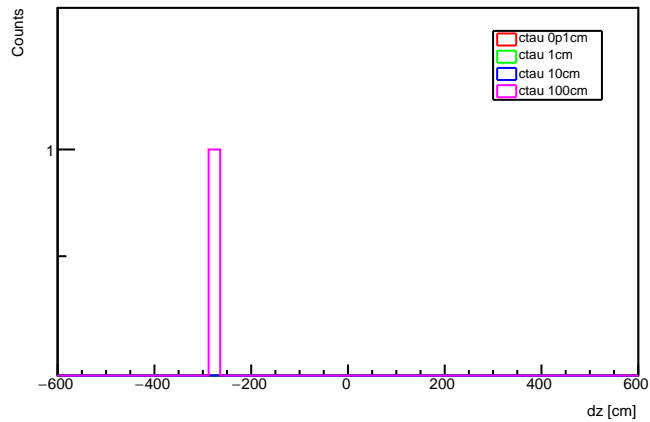
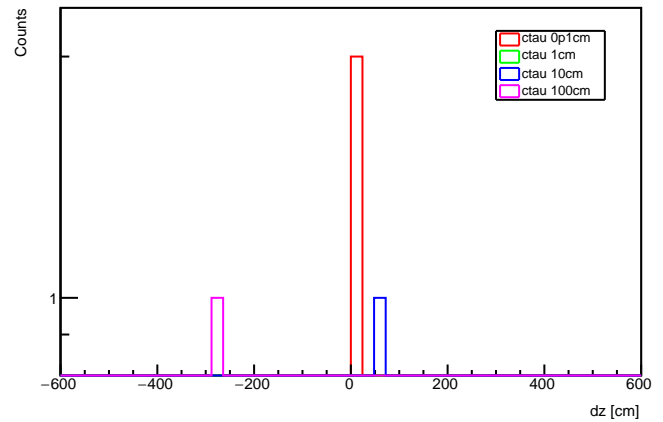
gen subleading Mu vxy: MET &gt; 120 GeV

gen subleading Mu vxy:  $j1_{\text{pt}} > 120$ , at most 2 jets w/  $p_{\text{T}} > 30$  GeVgen subleading Mu vxy: at least 2 mu w/  $p_{\text{T}} > 2$  GeV and  $\eta < 2.5$ 

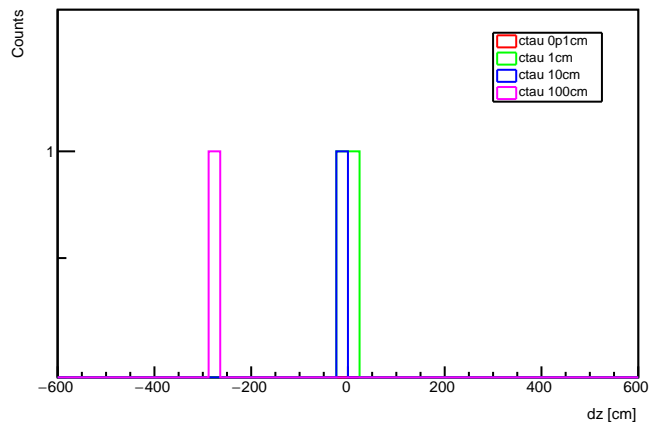
gen subleading Mu vz: no cuts

gen subleading Mu vz:  $n_{\text{jet}} \geq 1, j_{1\text{pt}} > 30 \text{ GeV}$ 

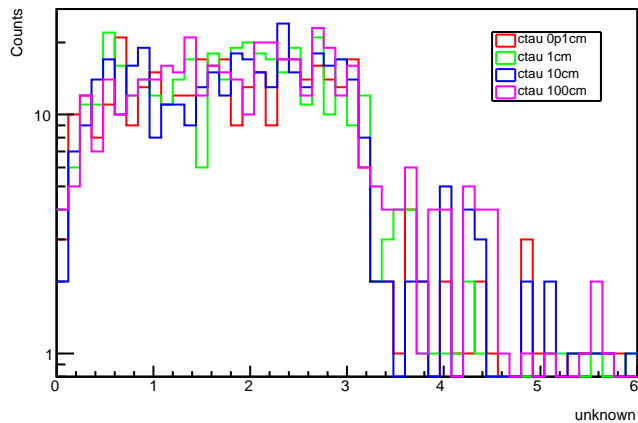
gen subleading Mu vz: MET &gt; 120 GeV

gen subleading Mu vz:  $j_{1\text{pt}} > 120, \text{ at most 2 jets w/ pt } > 30 \text{ GeV}$ 

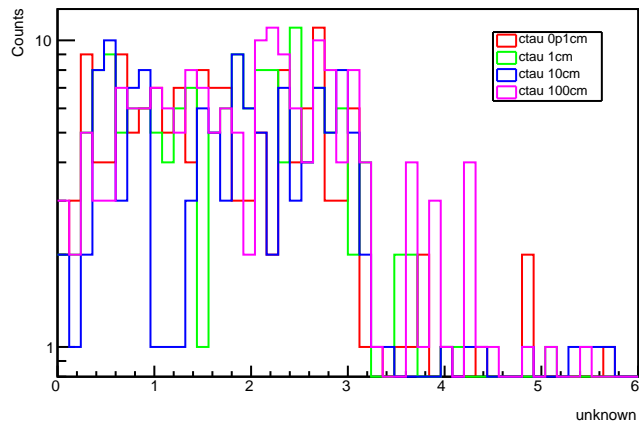
gen subleading Mu vz: at least 2 mu w/ pt &gt; 2 GeV and eta &lt; 2.5



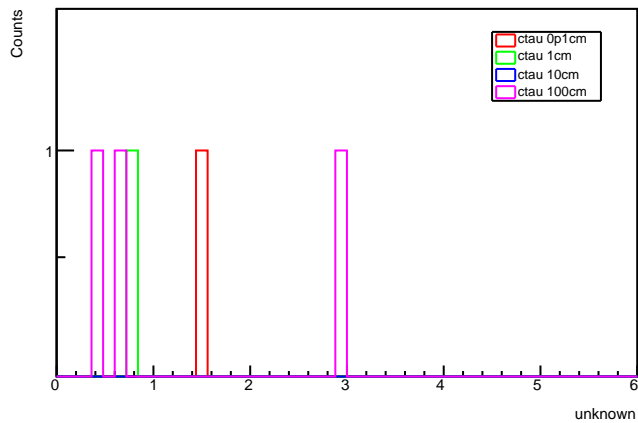
dR: gen leading mu and subleading mu: no cuts



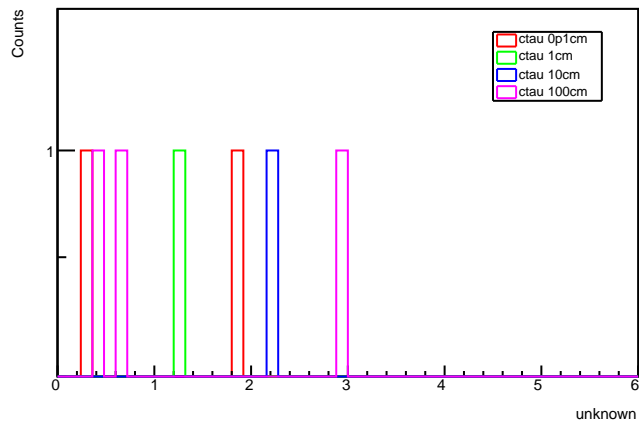
dR: gen leading mu and subleading mu: n\_jet &gt;= 1, j1pt &gt; 30 GeV



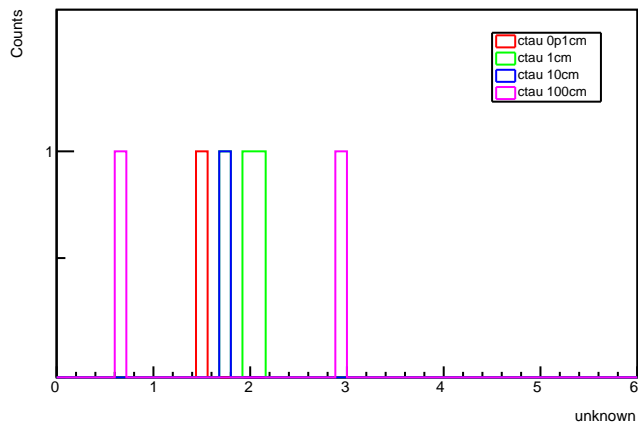
dR: gen leading mu and subleading mu: MET &gt; 120 GeV



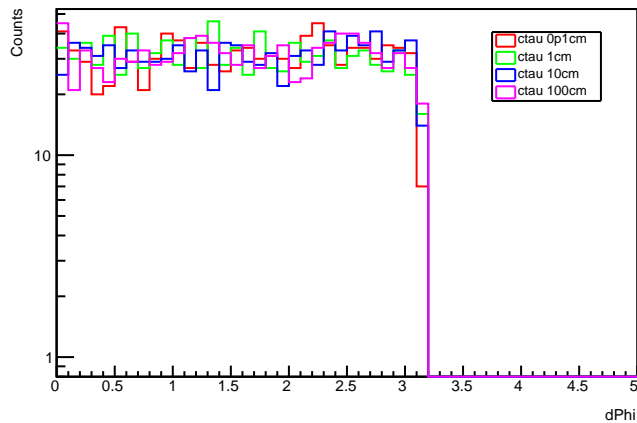
dR: gen leading mu and subleading mu: j1pt &gt; 120, at most 2 jets w/ pt &gt; 30 GeV



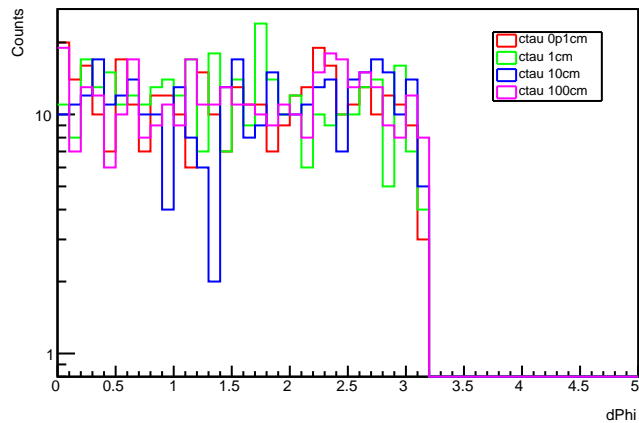
dR: gen leading mu and subleading mu: at least 2 mu w/ pt &gt; 2 GeV and eta &lt; 2.5



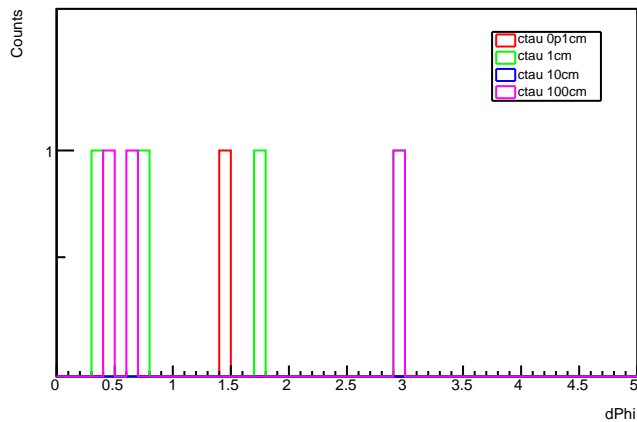
dPhi: gen MET and leading mu: no cuts



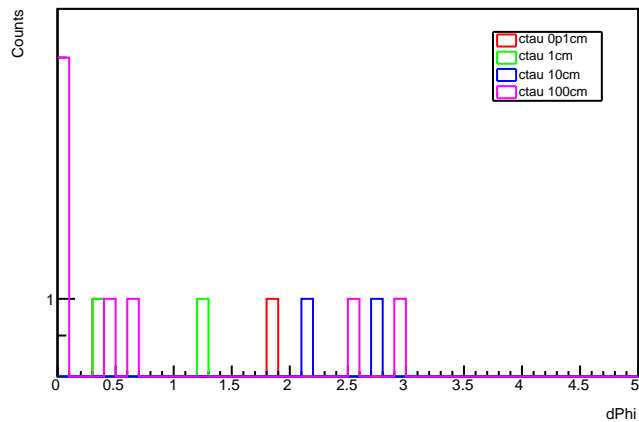
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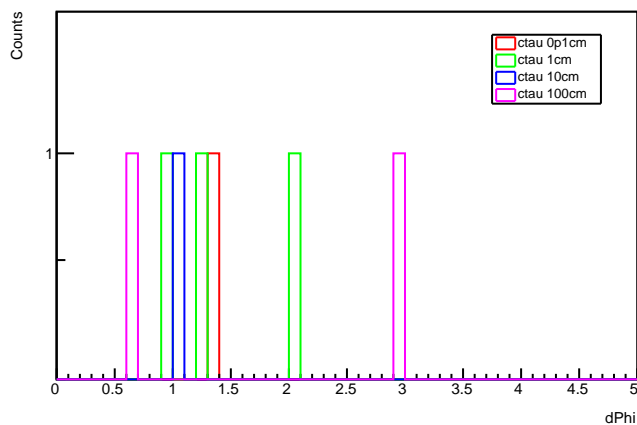
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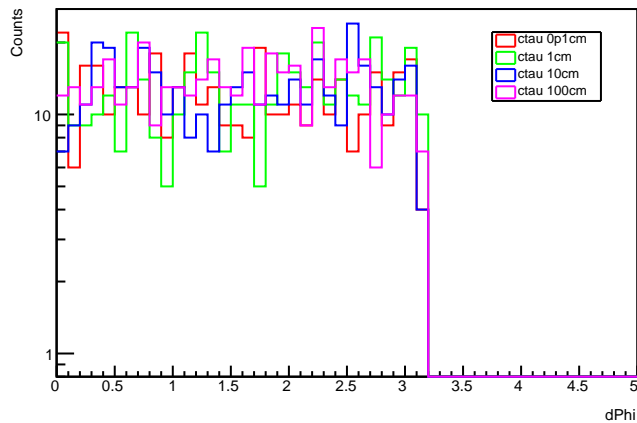
dPhi: gen MET and leading mu: j1pt &gt;120, at most 2 jets w/ pt &gt;30 GeV



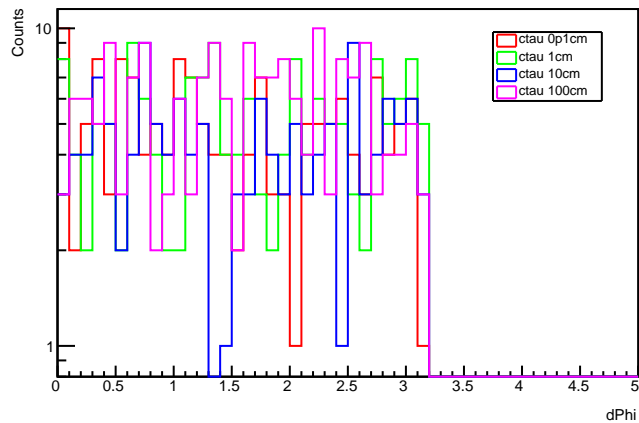
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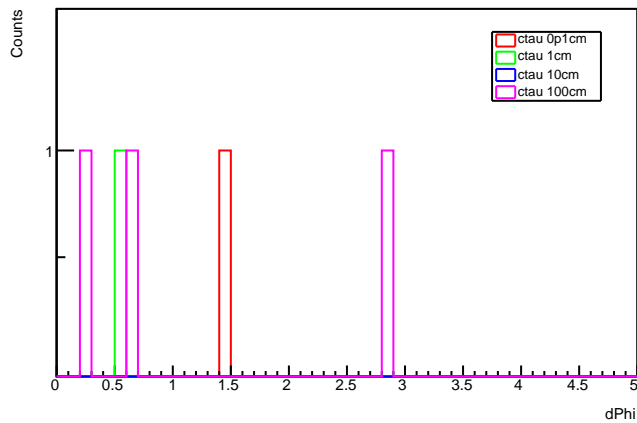
dPhi: gen leading mu and subleading mu: no cuts



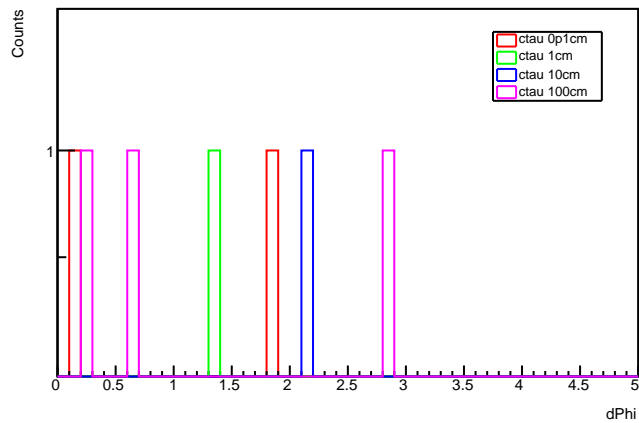
dPhi: gen leading mu and subleading mu: n\_jet &gt;=1, j1pt &gt; 30 GeV



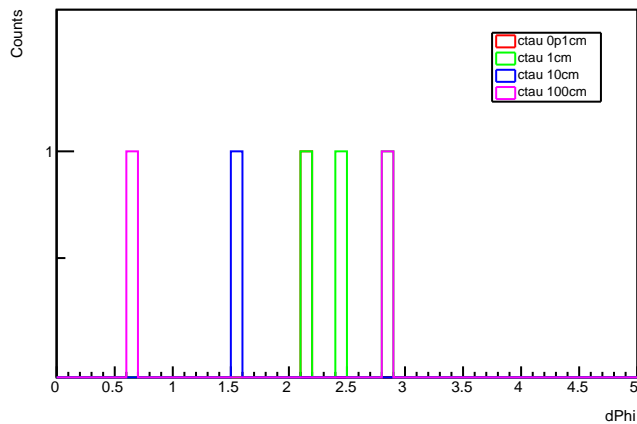
dPhi: gen leading mu and subleading mu: MET &gt; 120 GeV



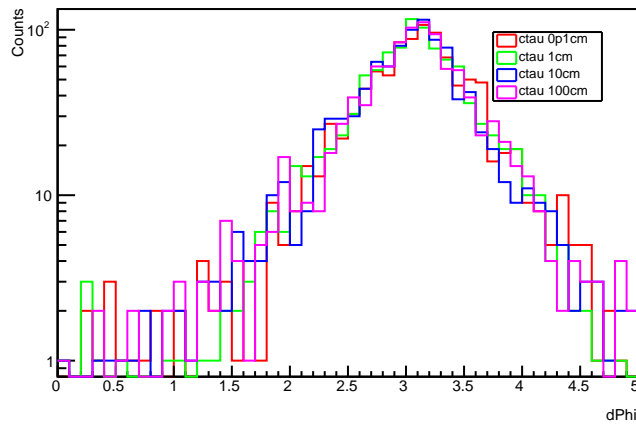
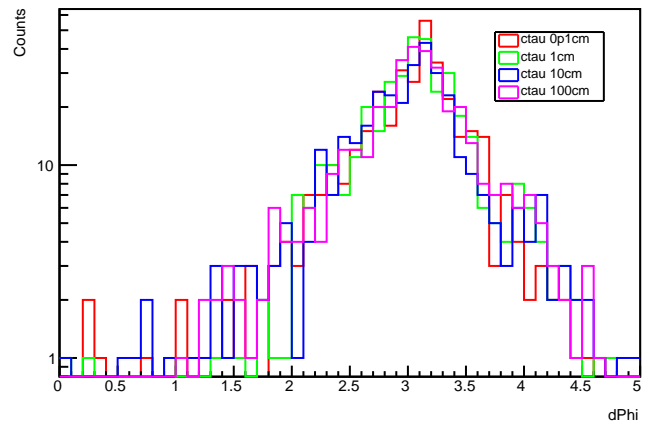
dPhi: gen leading mu and subleading mu: j1pt &gt;120, at most 2 jets w/ pt &gt;30 GeV



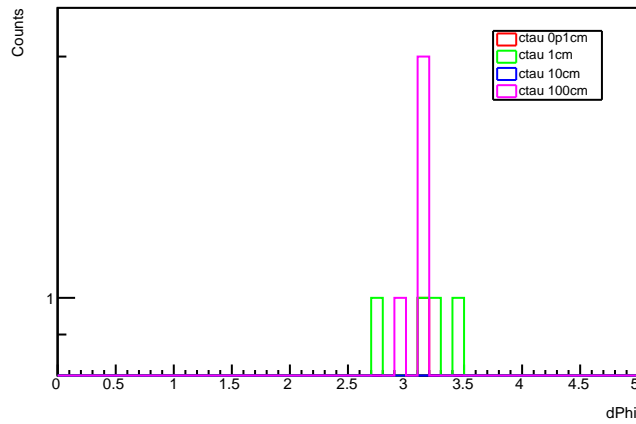
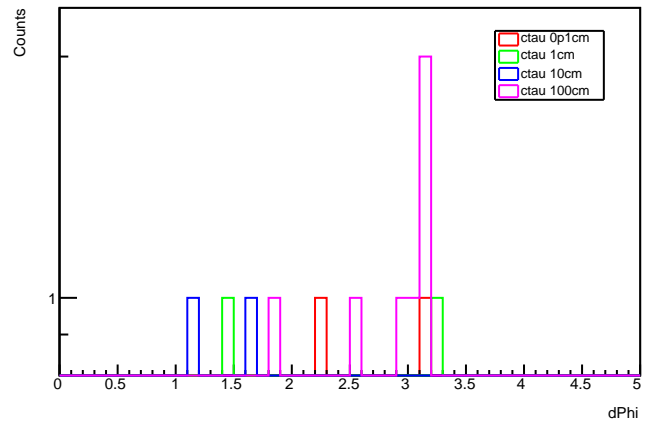
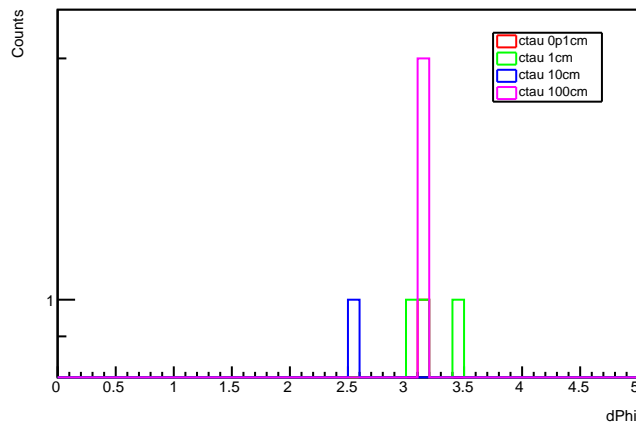
dPhi: gen leading mu and subleading mu: at least 2 mu w/ pt &gt; 2 GeV and eta &lt; 2.5



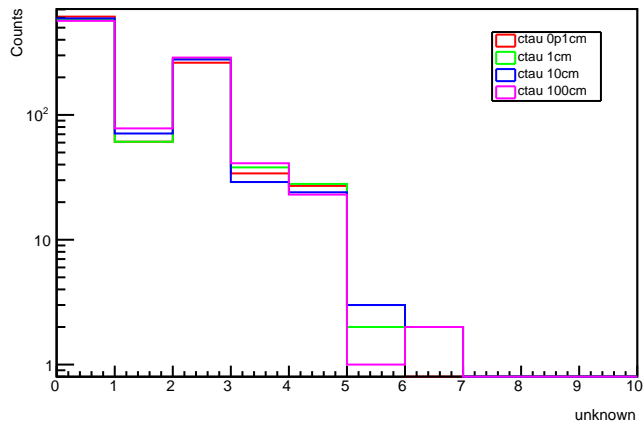
dPhi: gen MET and leading jet: no cuts

dPhi: gen MET and leading jet:  $n_{\text{jet}} \geq 1$ ,  $j1pt > 30 \text{ GeV}$ 

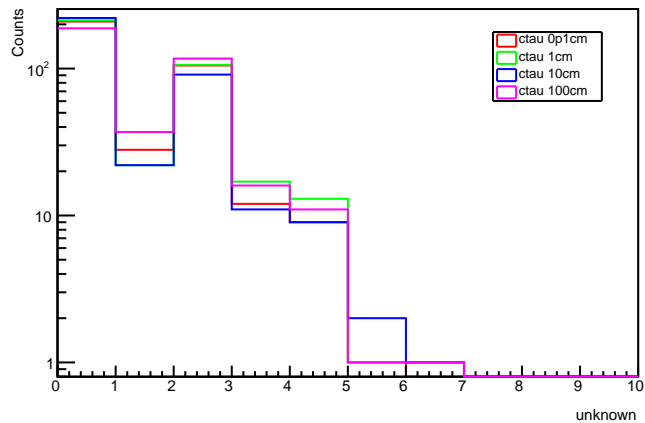
dPhi: gen MET and leading jet: MET &gt; 120 GeV

dPhi: gen MET and leading jet:  $j1pt > 120$ , at most 2 jets w/  $pt > 30 \text{ GeV}$ dPhi: gen MET and leading jet: at least 2 mu w/  $pt > 2 \text{ GeV}$  and  $eta < 2.5$ 

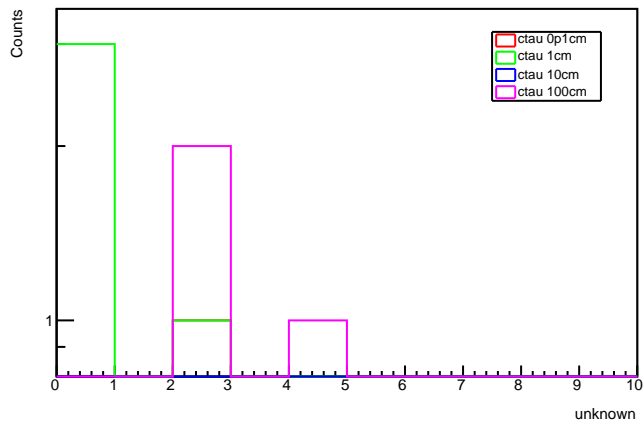
gen number of jets: no cuts



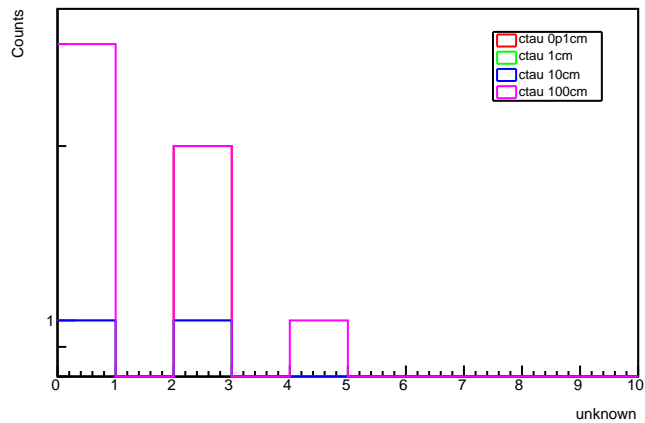
gen number of jets: n\_jet &gt;=1, j1pt &gt; 30 GeV



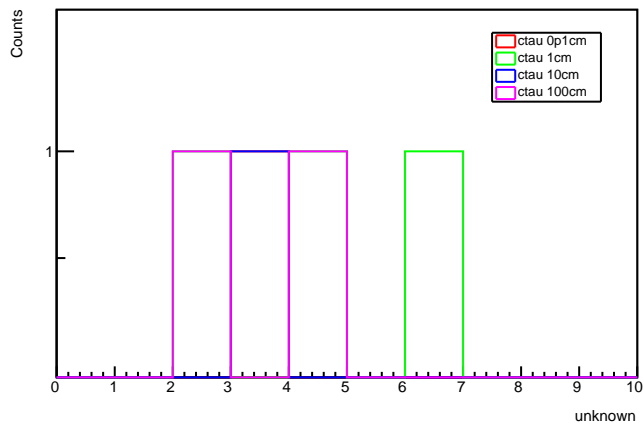
gen number of jets: MET &gt; 120 GeV



gen number of jets: j1pt &gt;120, at most 2 jets w/ pt &gt;30 GeV

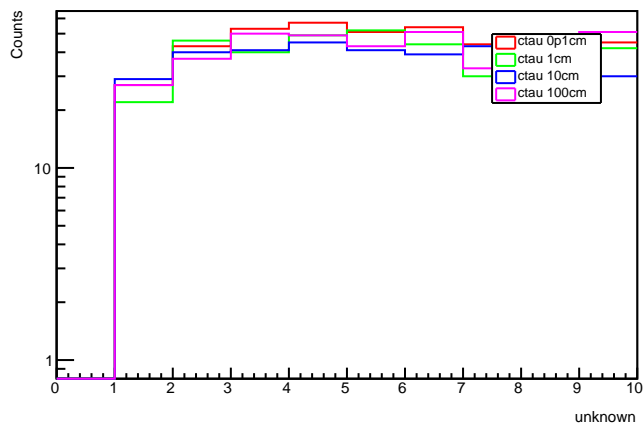


gen number of jets: at least 2 mu w/ pt &gt; 2 GeV and eta&lt;2.5

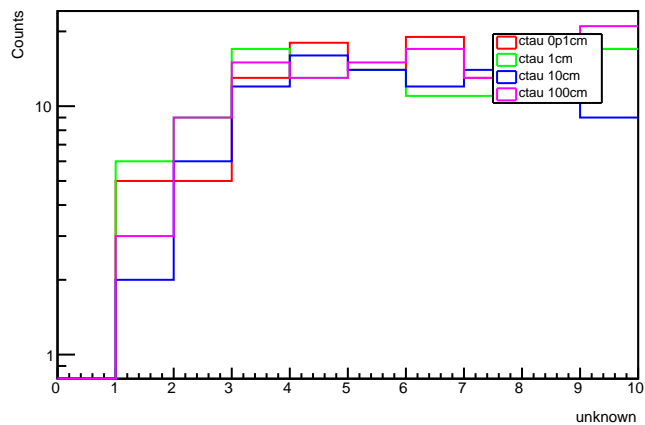




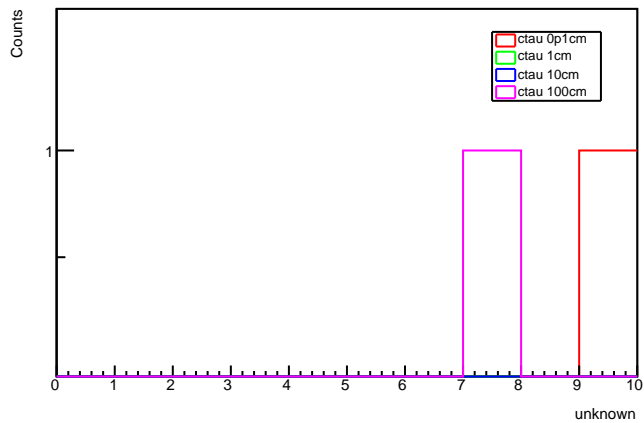
gen number of mu: no cuts



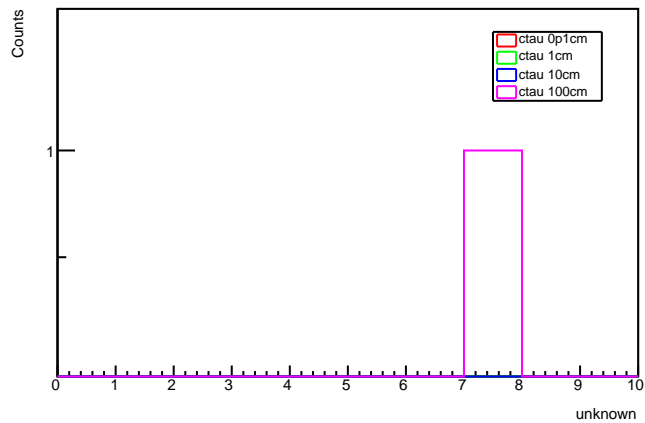
gen number of mu: n\_jet &gt;=1, j1pt &gt; 30 GeV



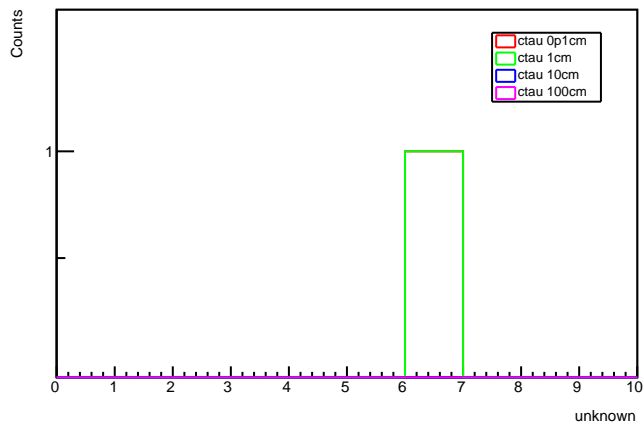
gen number of mu: MET &gt; 120 GeV



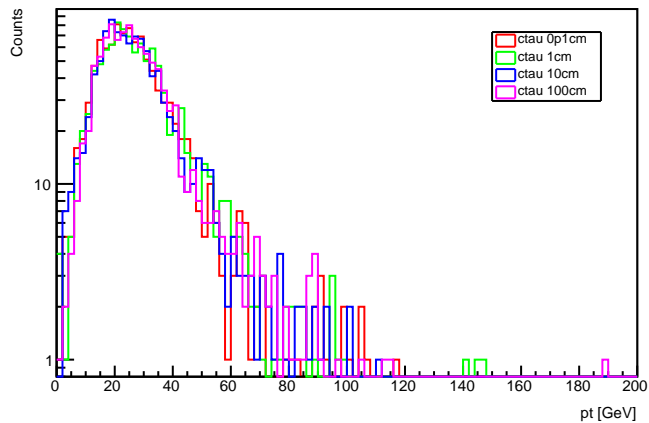
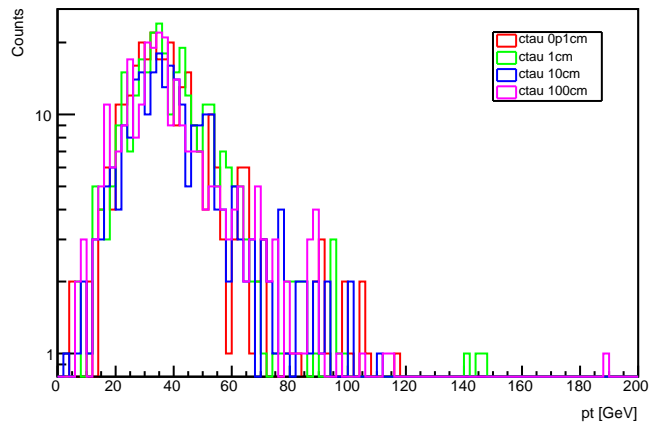
gen number of mu: j1pt &gt;120, at most 2 jets w/ pt &gt;30 GeV



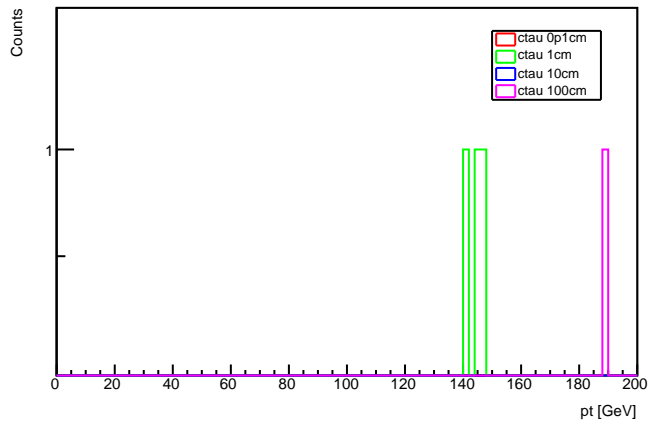
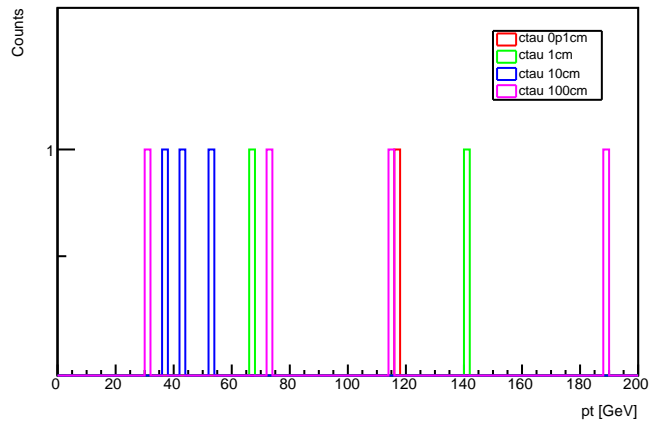
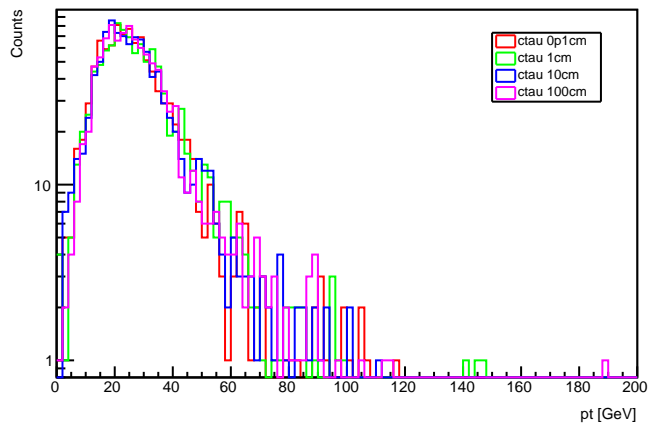
gen number of mu: at least 2 mu w/ pt &gt; 2 GeV and eta&lt;2.5



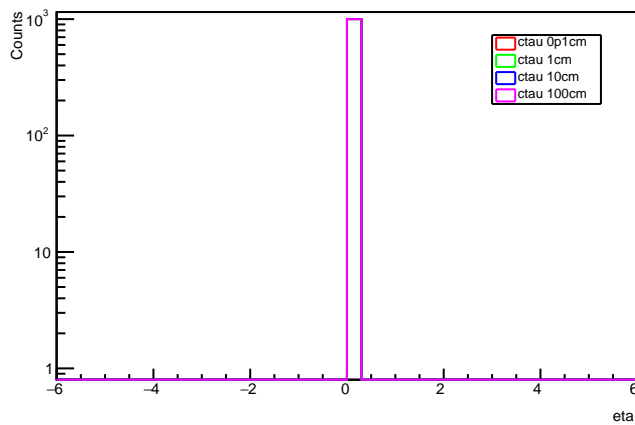
reco leading MET: no cuts

reco leading MET:  $n_{\text{jet}} \geq 1$ ,  $j_{1\text{pt}} > 30$  GeV

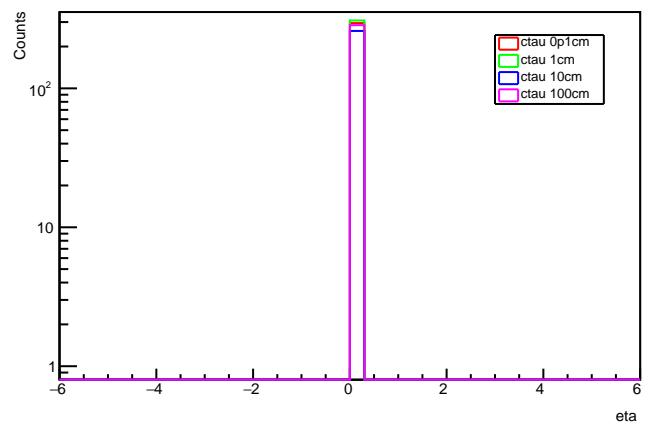
reco leading MET: MET &gt; 120 GeV

reco leading MET:  $j_{1\text{pt}} > 120$ , at most 2 jets w/  $p_{T} > 30$  GeVreco leading MET: at least 2 mu w/  $p_{T} > 2$  GeV and  $|\eta| < 2.5$ 

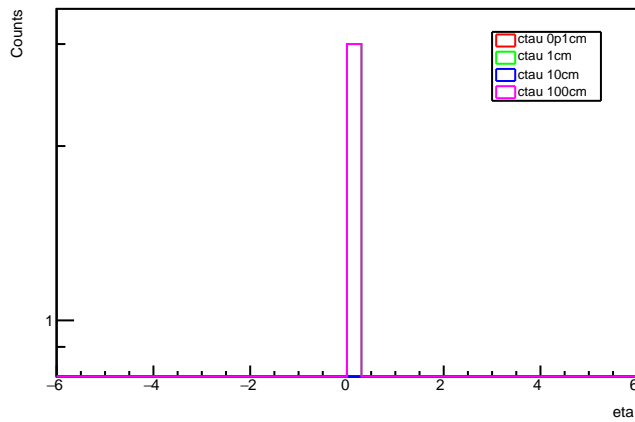
reco leading Met eta: no cuts



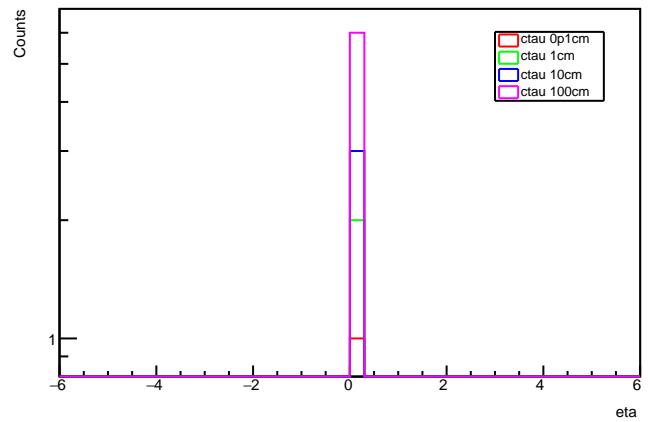
reco leading Met eta: n\_jet &gt;=1, j1pt &gt; 30 GeV



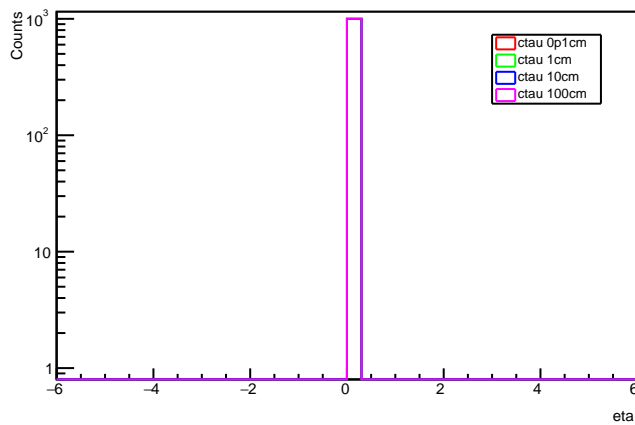
reco leading Met eta: MET &gt; 120 GeV



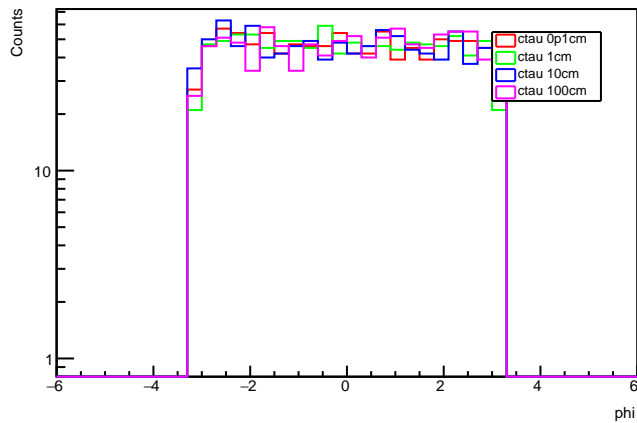
reco leading Met eta: j1pt &gt;120, at most 2 jets w/ pt &gt;30 GeV



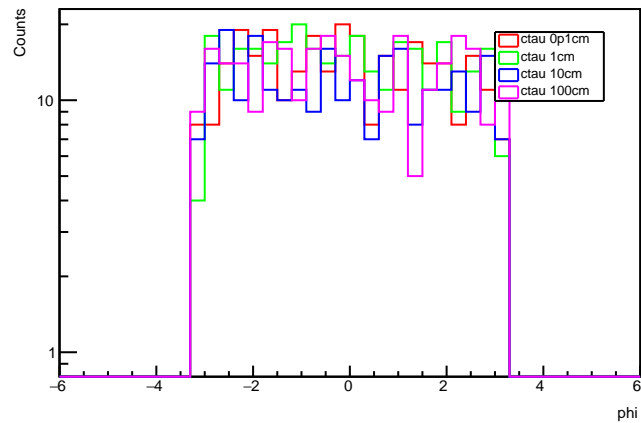
reco leading Met eta: at least 2 mu w/ pt &gt; 2 GeV and eta&lt;2.5



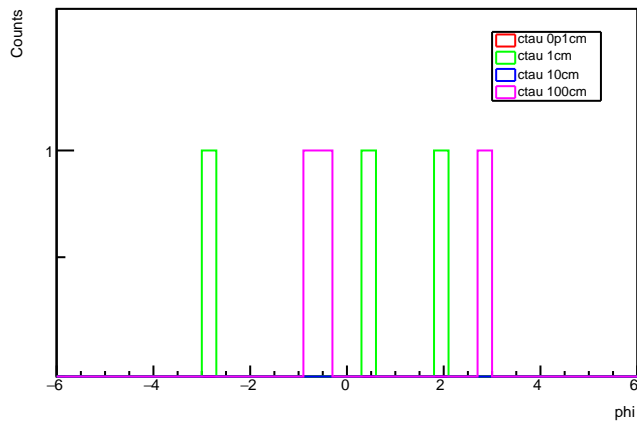
reco leading Met phi: no cuts



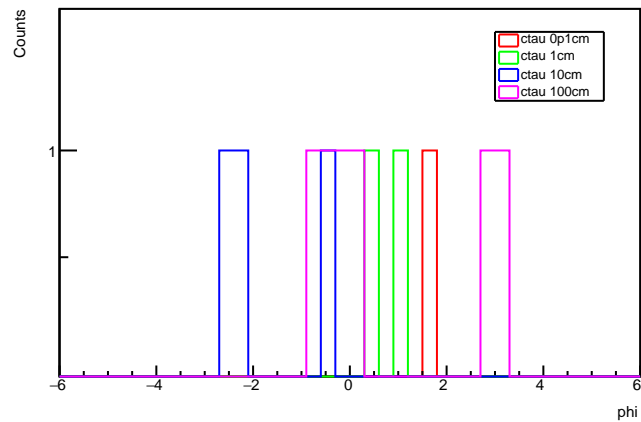
reco leading Met phi: n\_jet &gt;= 1, j1pt &gt; 30 GeV



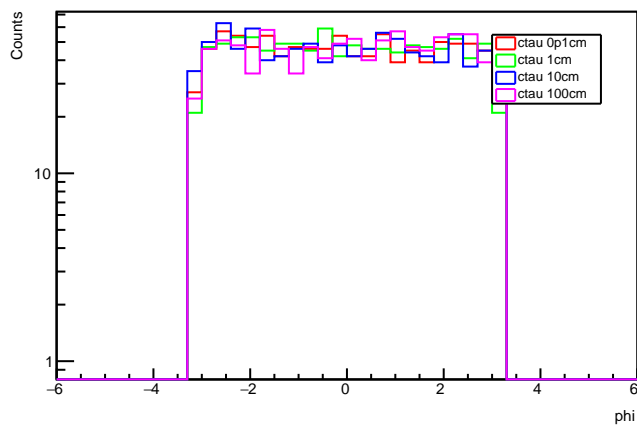
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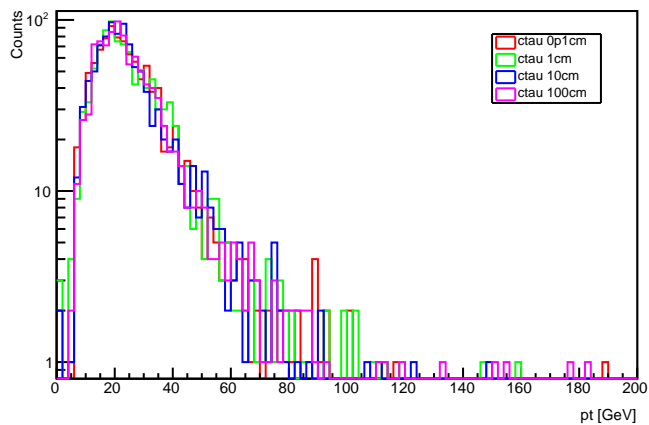
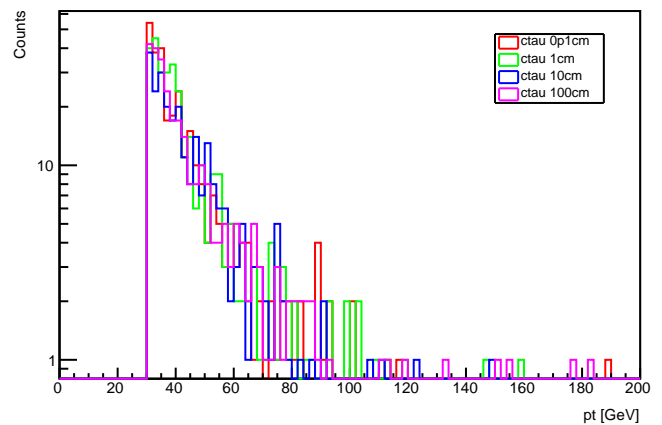
reco leading Met phi: j1pt &gt; 120, at most 2 jets w/ pt &gt; 30 GeV



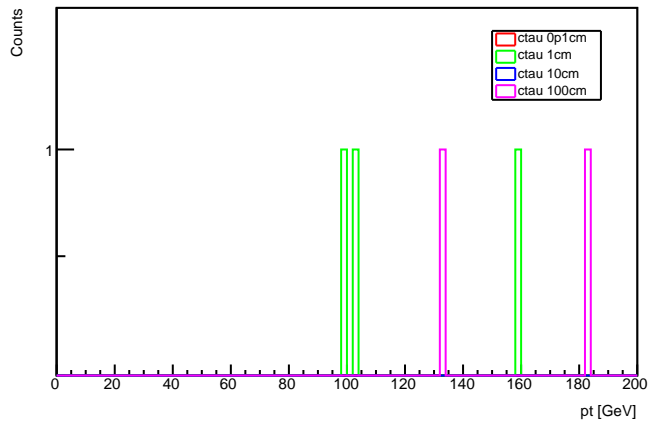
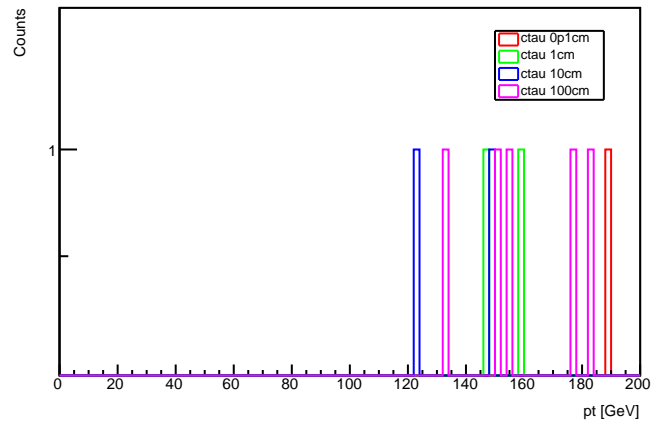
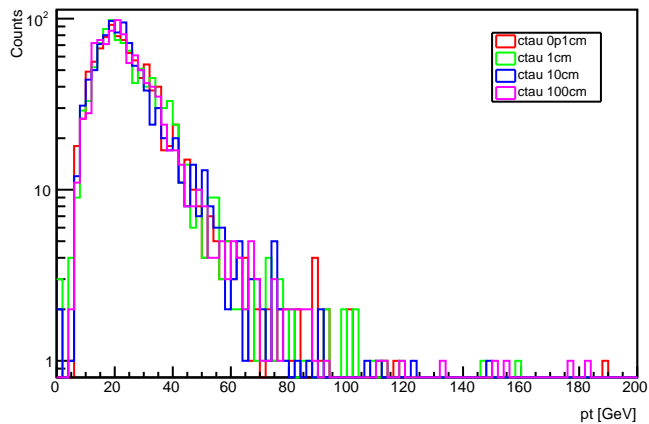
reco leading Met phi: at least 2 mu w/ pt &gt; 2 GeV and eta &lt; 2.5



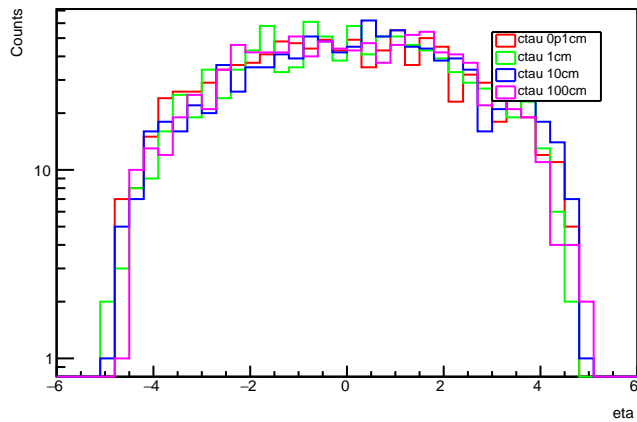
reco leading Jet pt: no cuts

reco leading Jet pt:  $n_{\text{jet}} \geq 1$ ,  $j1pt > 30$  GeV

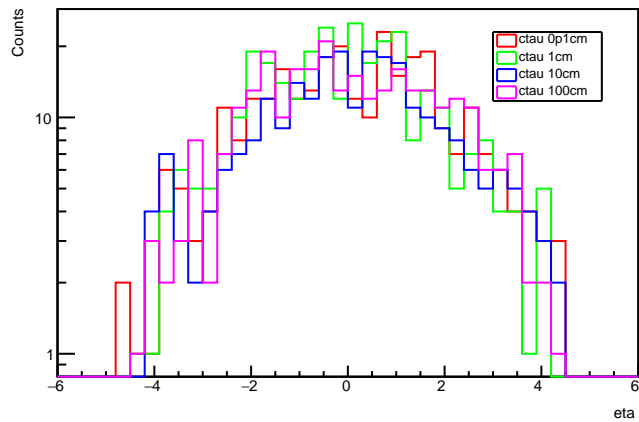
reco leading Jet pt: MET &gt; 120 GeV

reco leading Jet pt:  $j1pt > 120$ , at most 2 jets w/  $pt > 30$  GeVreco leading Jet pt: at least 2 mu w/  $pt > 2$  GeV and  $\eta < 2.5$ 

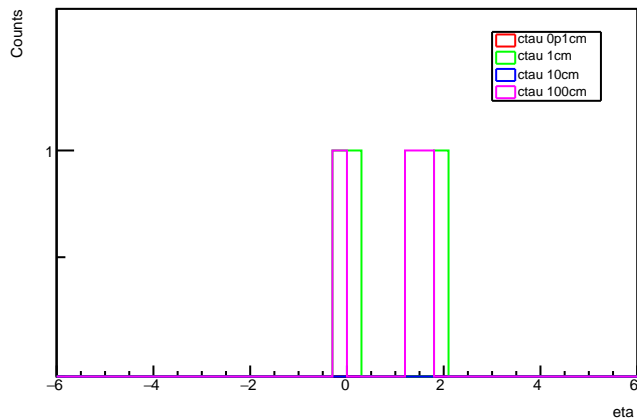
reco leading Jet eta: no cuts



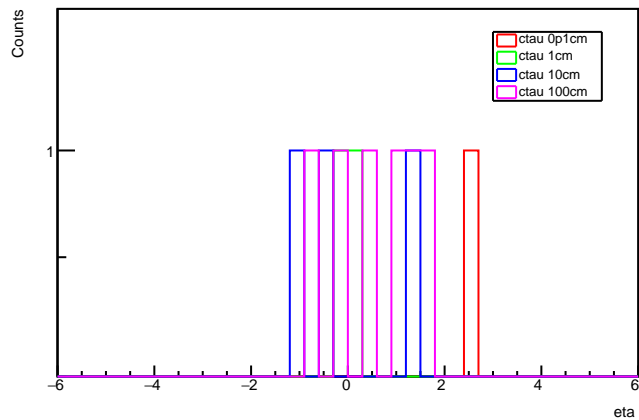
reco leading Jet eta: n\_jet &gt;=1, j1pt &gt; 30 GeV



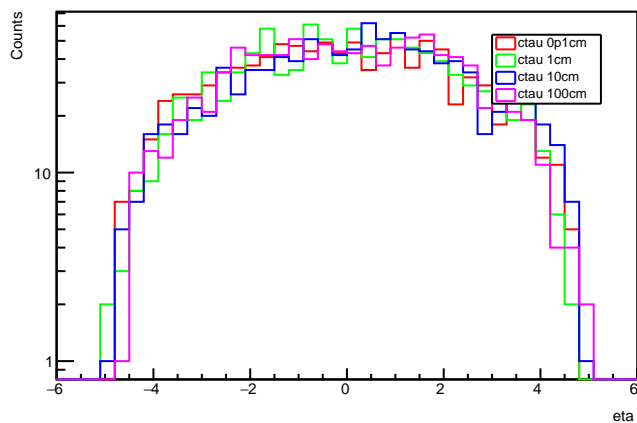
reco leading Jet eta: MET &gt; 120 GeV



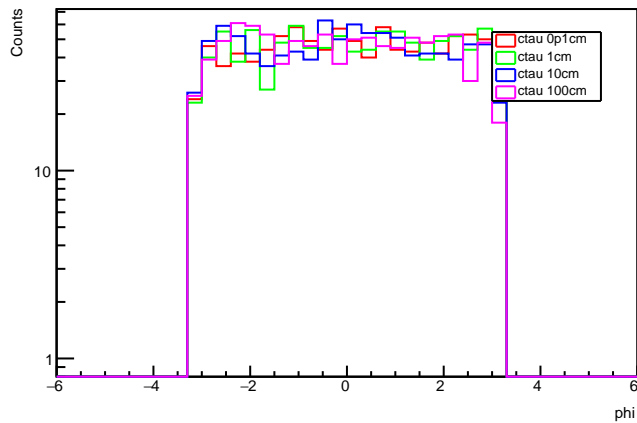
reco leading Jet eta: j1pt &gt;120, at most 2 jets w/ pt &gt;30 GeV



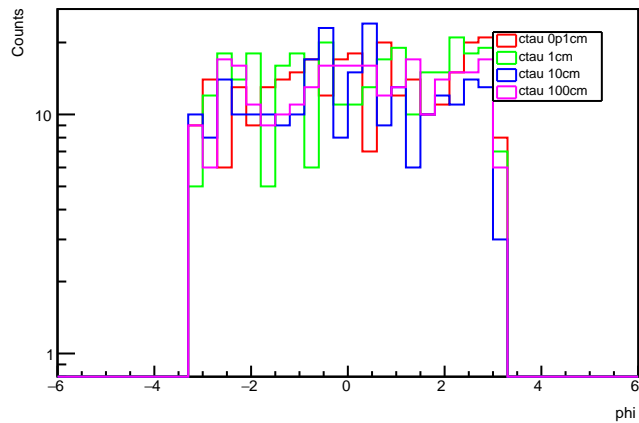
reco leading Jet eta: at least 2 mu w/ pt &gt; 2 GeV and eta&lt;2.5



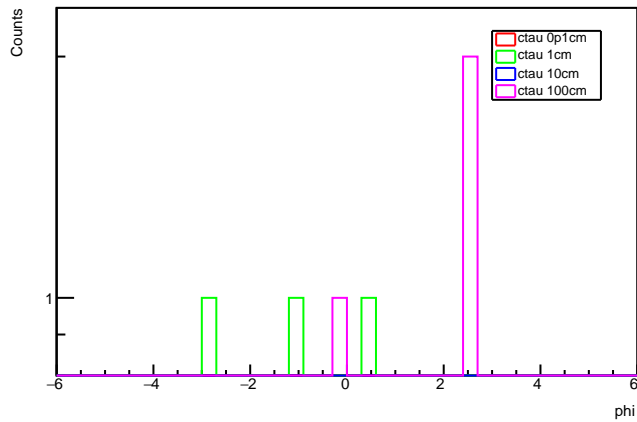
reco leading Jet phi: no cuts



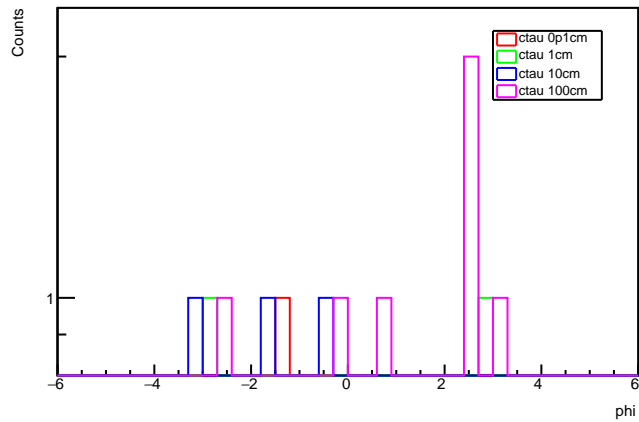
reco leading Jet phi: n\_jet &gt;= 1, j1pt &gt; 30 GeV



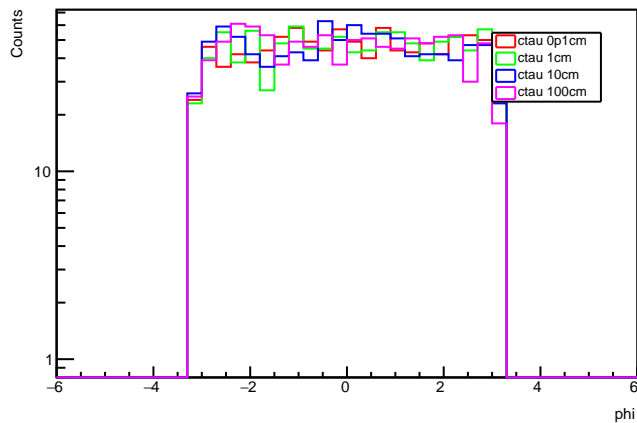
reco leading Jet phi: MET &gt; 120 GeV



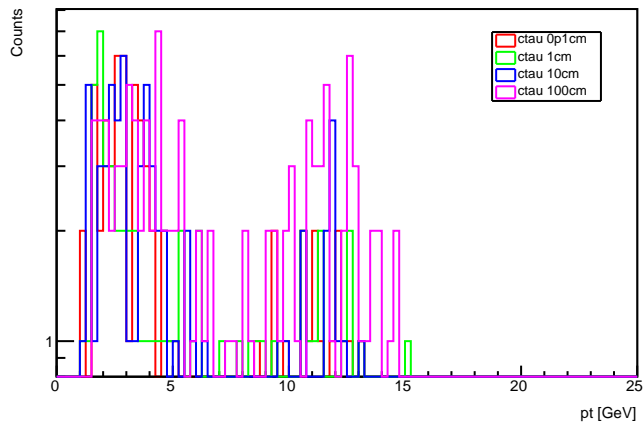
reco leading Jet phi: j1pt &gt; 120, at most 2 jets w/ pt &gt; 30 GeV



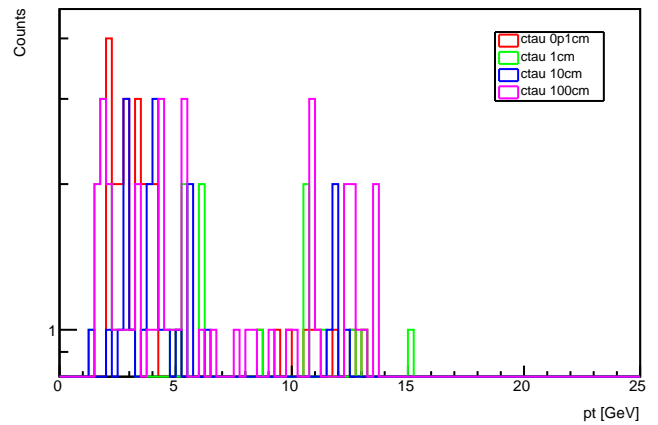
reco leading Jet phi: at least 2 mu w/ pt &gt; 2 GeV and eta &lt; 2.5



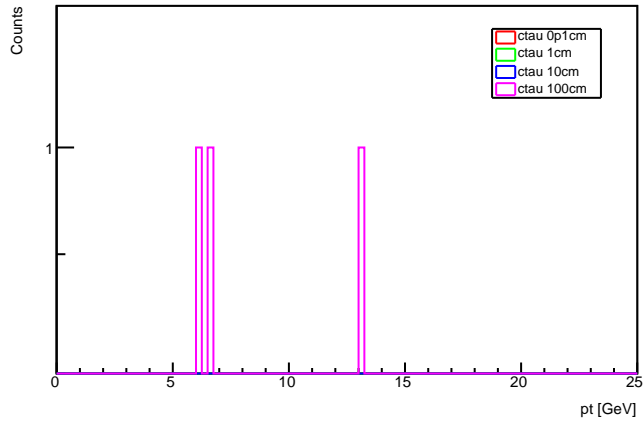
reco leading Mu pt: no cuts



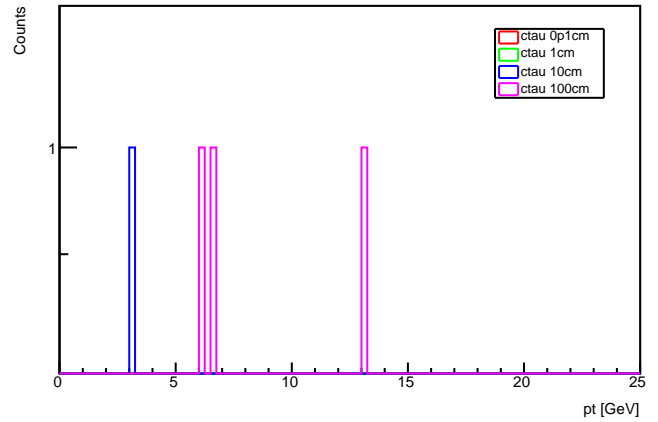
reco leading Mu pt: n\_jet &gt;=1, j1pt &gt; 30 GeV



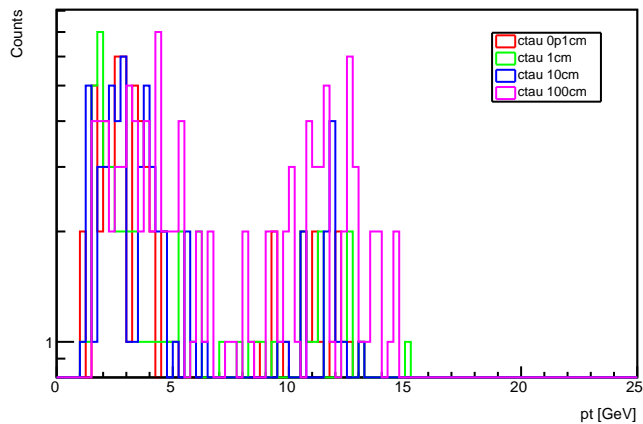
reco leading Mu pt: MET &gt; 120 GeV



reco leading Mu pt: j1pt &gt;120, at most 2 jets w/ pt &gt;30 GeV

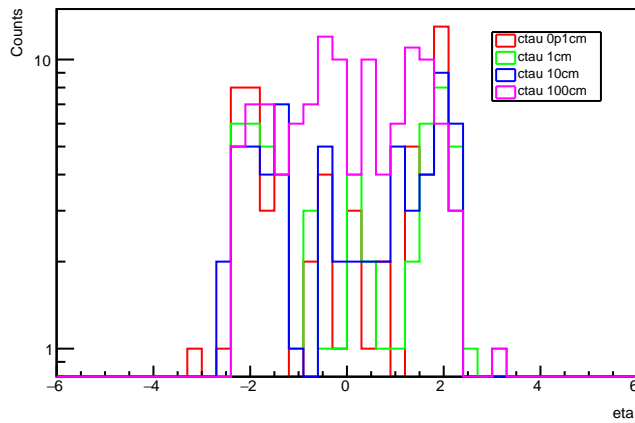
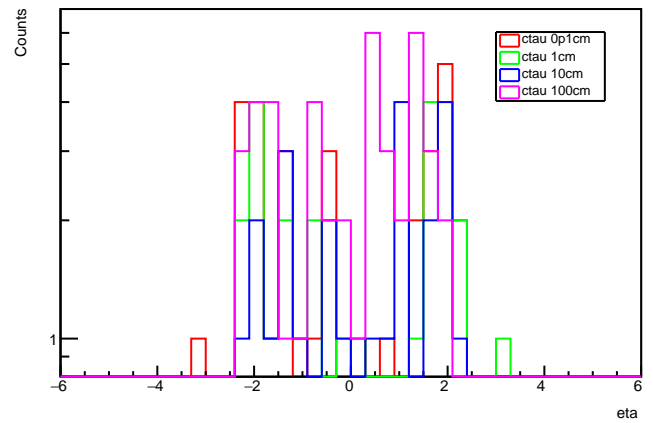


reco leading Mu pt: at least 2 mu w/ pt &gt; 2 GeV and eta&lt;2.5

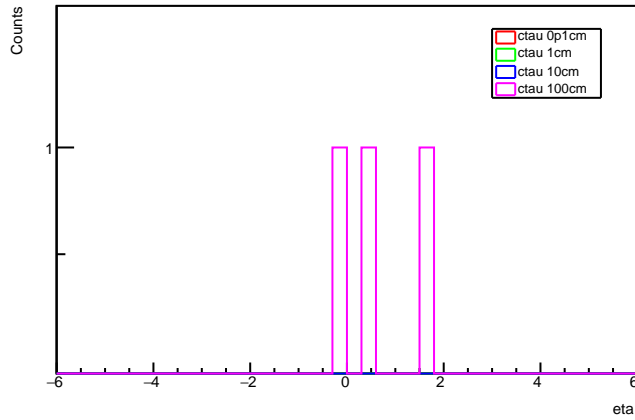
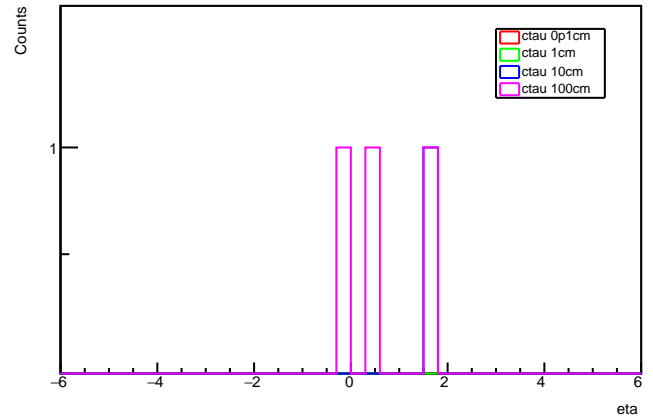
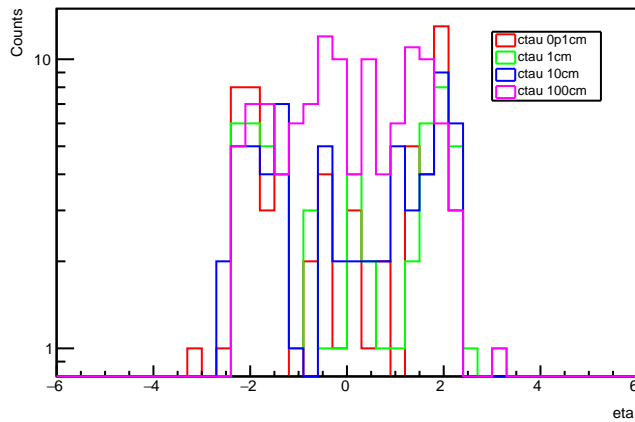




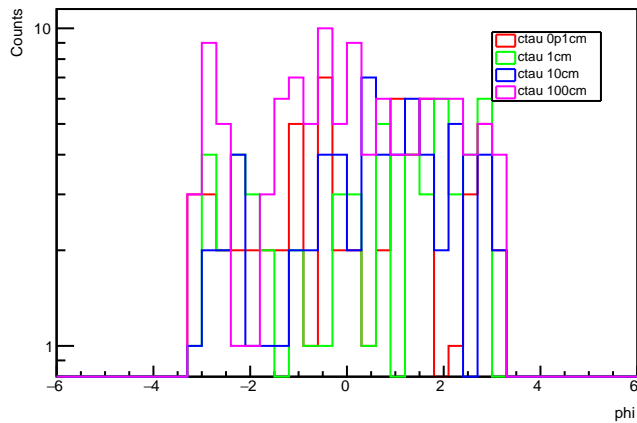
reco leading Mu eta: no cuts

reco leading Mu eta:  $n_{\text{jet}} \geq 1$ ,  $j_{1\text{pt}} > 30$  GeV

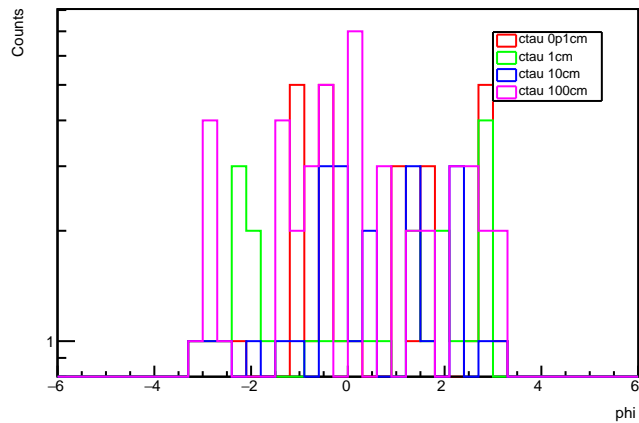
reco leading Mu eta: MET &gt; 120 GeV

reco leading Mu eta:  $j_{1\text{pt}} > 120$ , at most 2 jets w/  $p_t > 30$  GeVreco leading Mu eta: at least 2 mu w/  $p_t > 2$  GeV and  $\eta < 2.5$ 

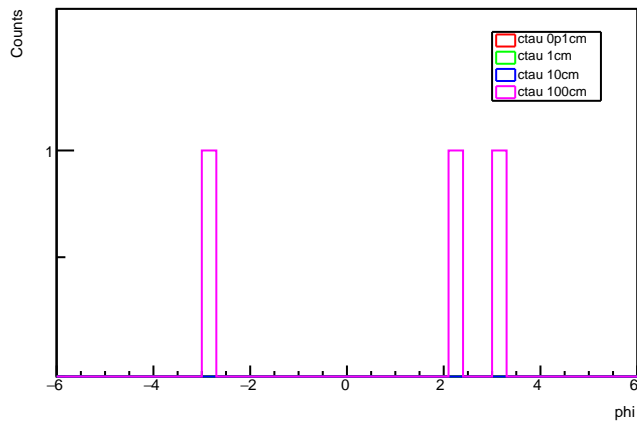
reco leading Mu phi: no cuts



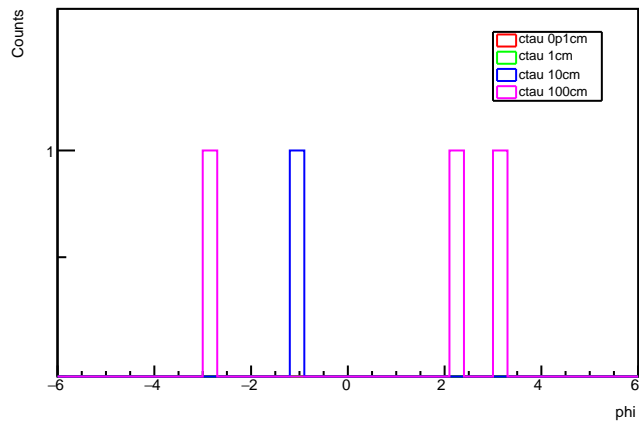
reco leading Mu phi: n\_jet &gt;=1, j1pt &gt; 30 GeV



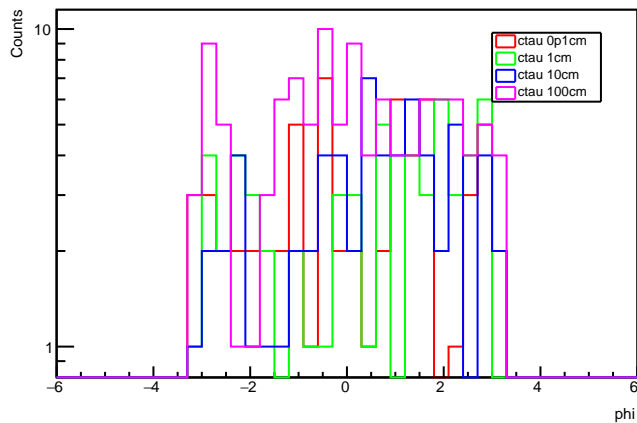
reco leading Mu phi: MET &gt; 120 GeV



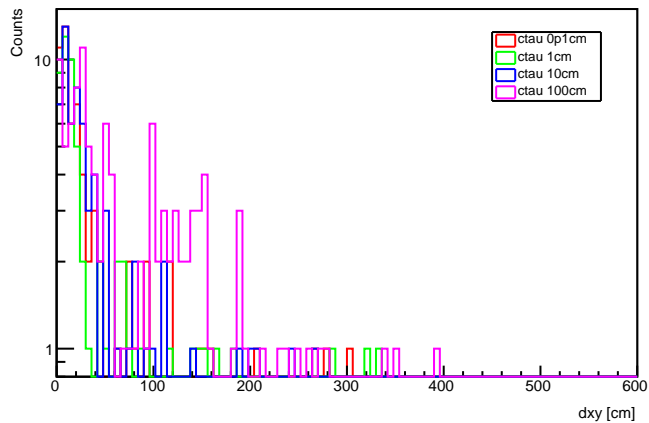
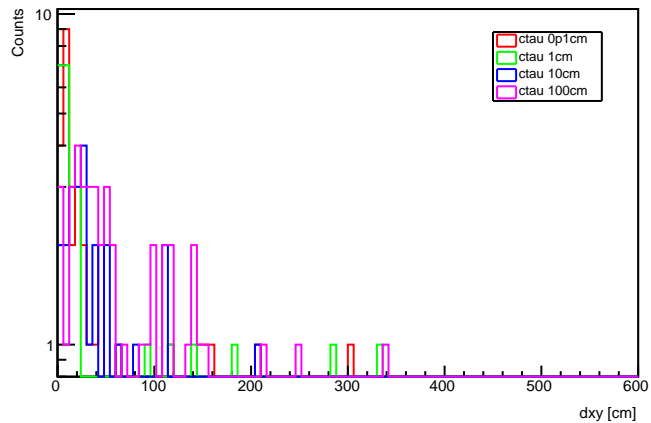
reco leading Mu phi: j1pt &gt;120, at most 2 jets w/ pt &gt;30 GeV



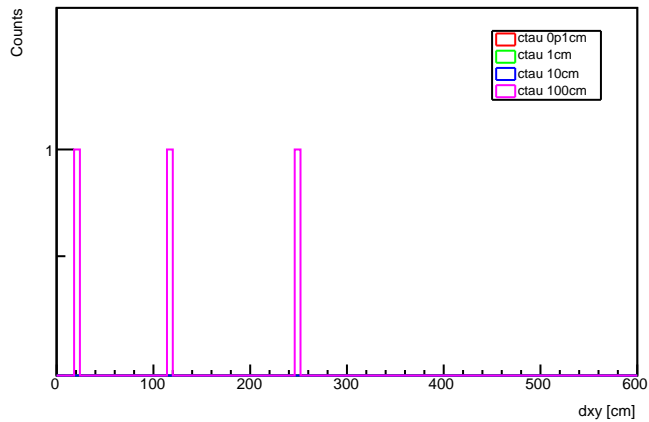
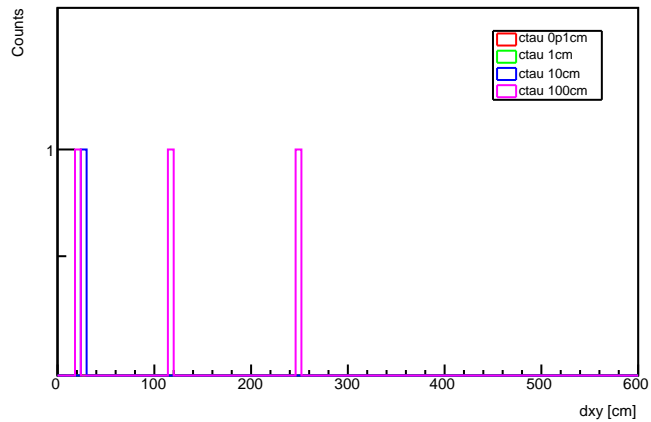
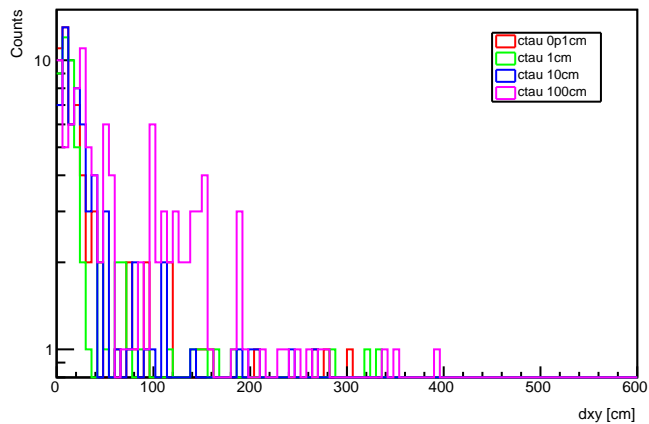
reco leading Mu phi: at least 2 mu w/ pt &gt; 2 GeV and eta&lt;2.5



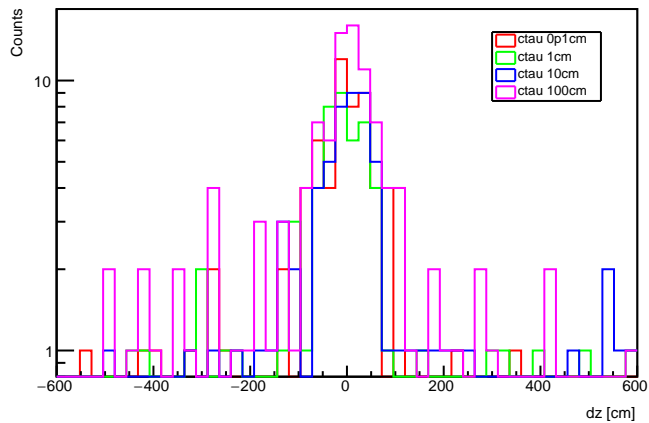
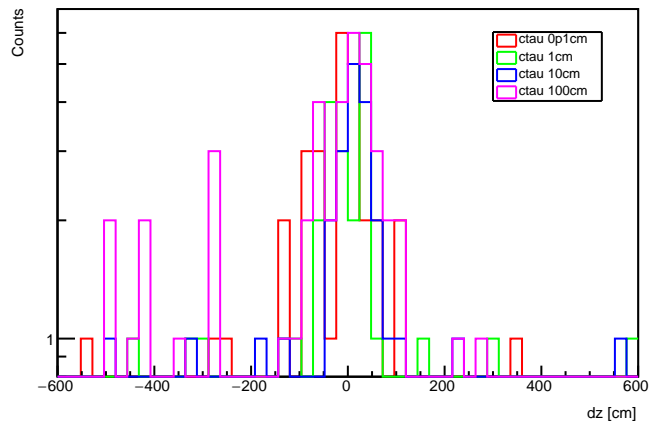
reco leading Mu vxy: no cuts

reco leading Mu vxy:  $n_{\text{jet}} \geq 1$ ,  $j1pt > 30$  GeV

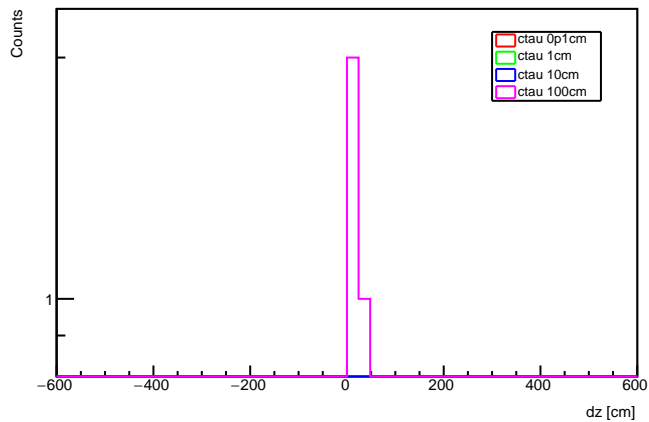
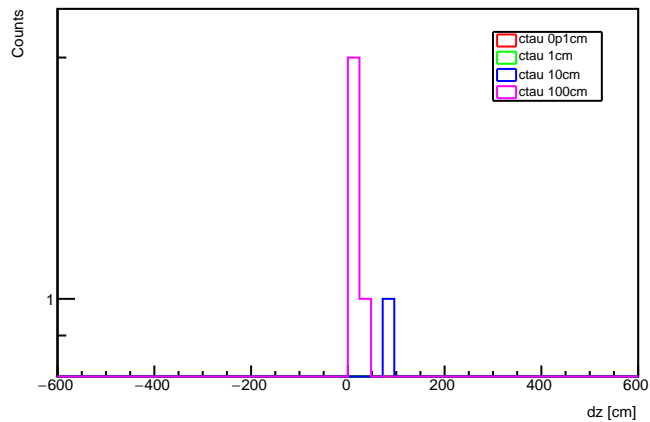
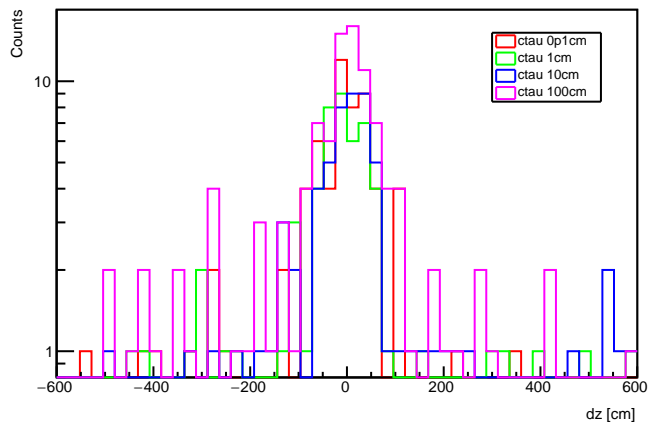
reco leading Mu vxy: MET &gt; 120 GeV

reco leading Mu vxy:  $j1pt > 120$ , at most 2 jets w/  $pt > 30$  GeVreco leading Mu vxy: at least 2 mu w/  $pt > 2$  GeV and  $eta < 2.5$ 

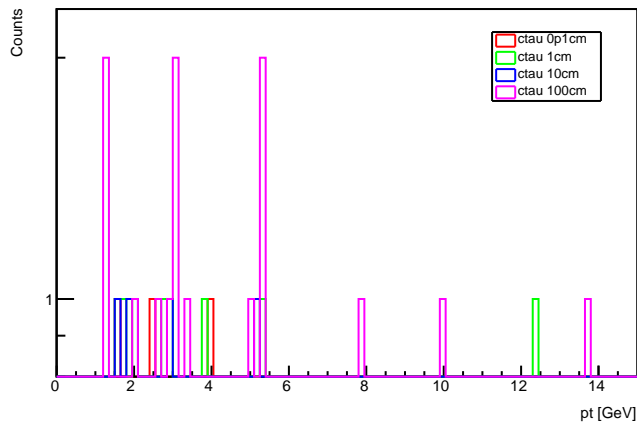
reco leading Mu vz: no cuts

reco leading Mu vz:  $n_{\text{jet}} \geq 1$ ,  $j_{1\text{pt}} > 30$  GeV

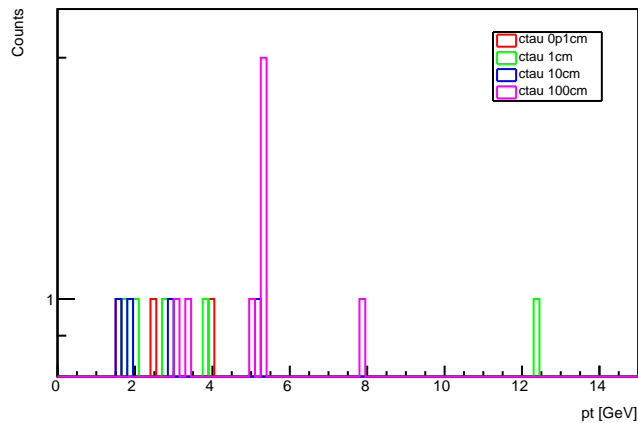
reco leading Mu vz: MET &gt; 120 GeV

reco leading Mu vz:  $j_{1\text{pt}} > 120$ , at most 2 jets w/  $p_t > 30$  GeVreco leading Mu vz: at least 2 mu w/  $p_t > 2$  GeV and  $\eta < 2.5$ 

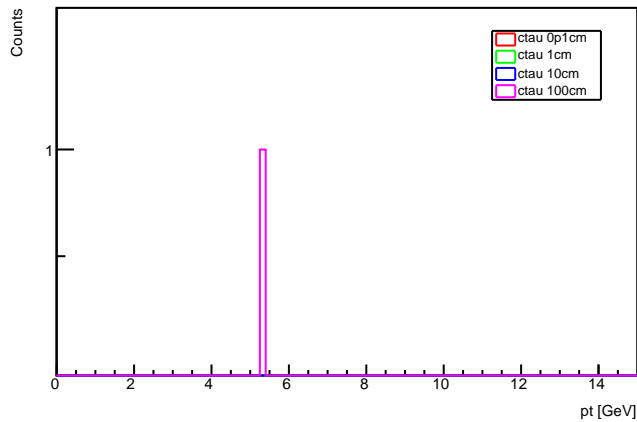
reco subleading Mu pt: no cuts



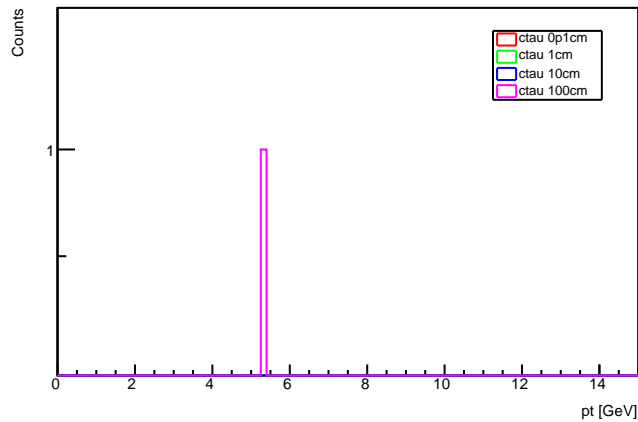
reco subleading Mu pt: n\_jet &gt;=1, j1pt &gt; 30 GeV



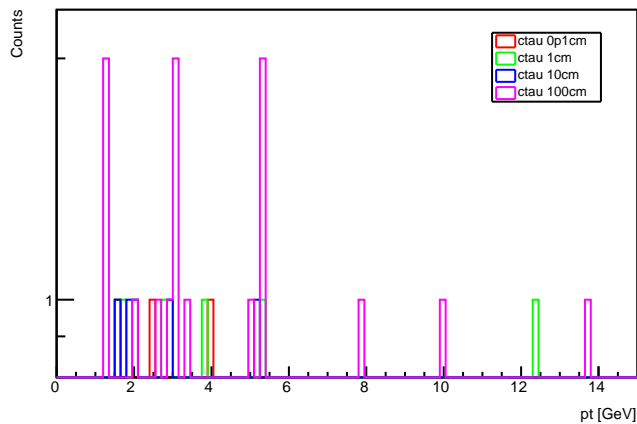
reco subleading Mu pt: MET &gt; 120 GeV



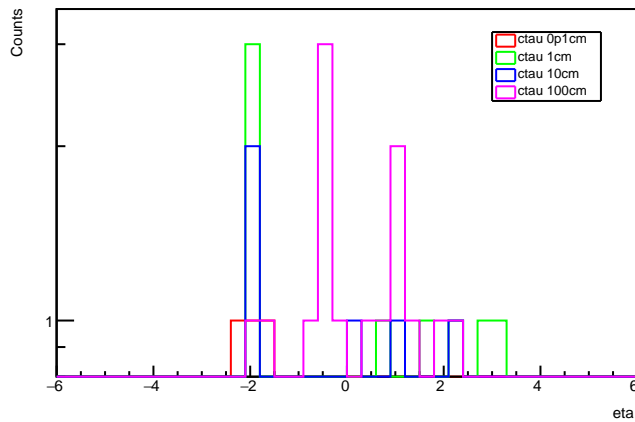
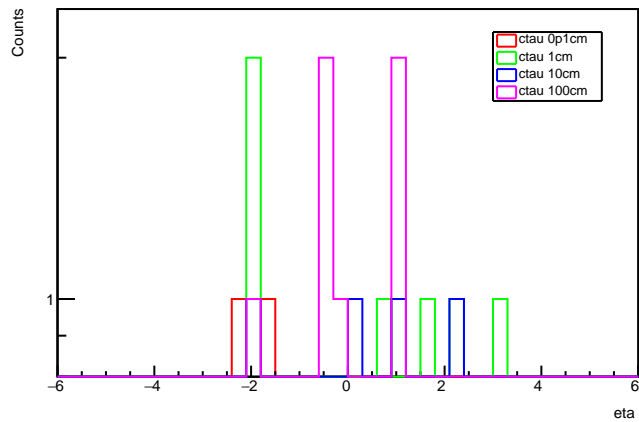
reco subleading Mu pt: j1pt &gt;120, at most 2 jets w/ pt &gt;30 GeV



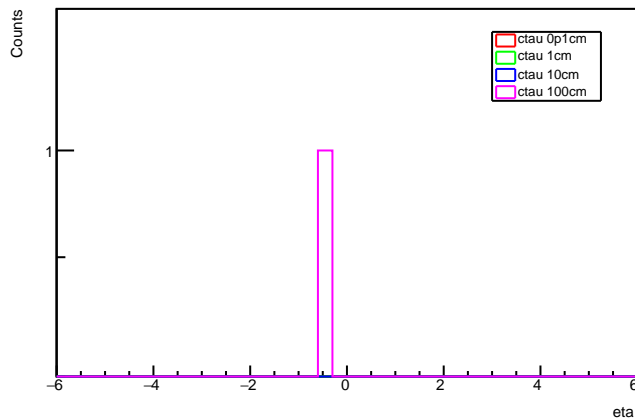
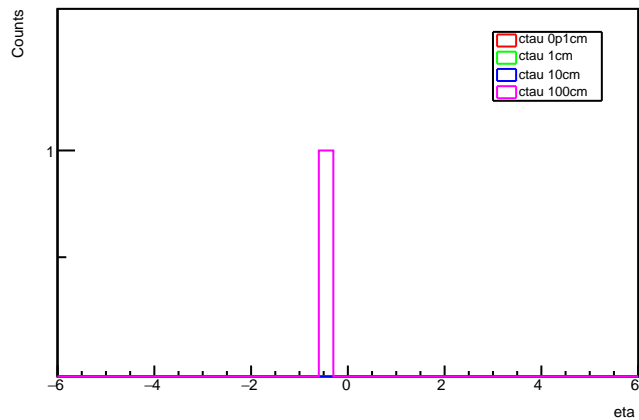
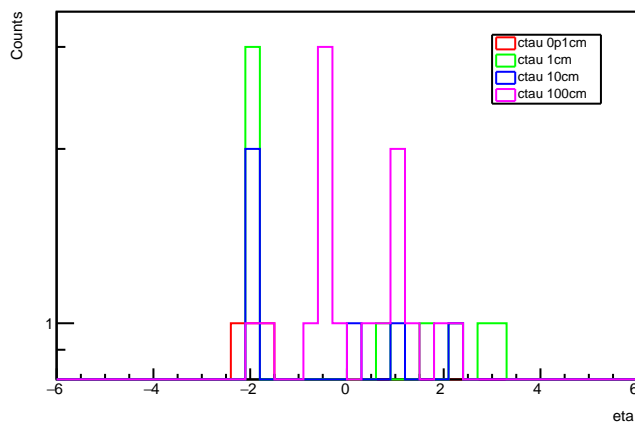
reco subleading Mu pt: at least 2 mu w/ pt &gt; 2 GeV and eta&lt;2.5



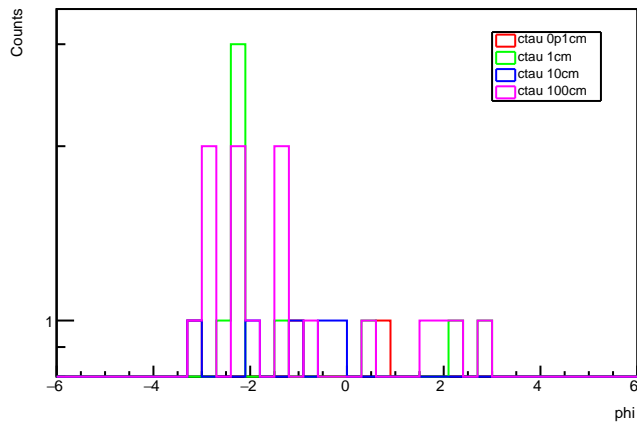
reco subleading Mu eta: no cuts

reco subleading Mu eta:  $n_{\text{jet}} \geq 1, j_{1\text{pt}} > 30 \text{ GeV}$ 

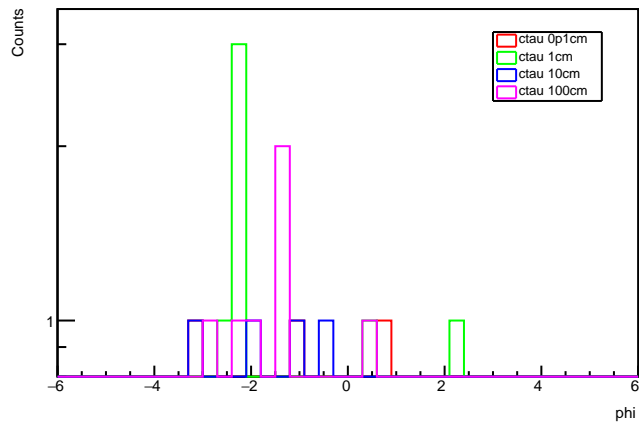
reco subleading Mu eta: MET &gt; 120 GeV

reco subleading Mu eta:  $j_{1\text{pt}} > 120$ , at most 2 jets w/  $pt > 30 \text{ GeV}$ reco subleading Mu eta: at least 2 mu w/  $pt > 2 \text{ GeV}$  and  $eta < 2.5$ 

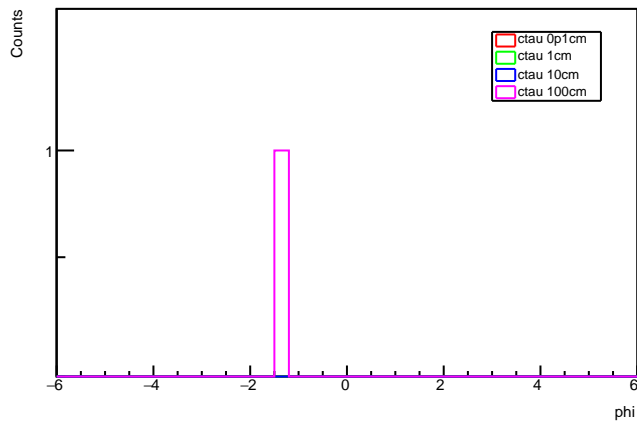
reco subleading Mu phi: no cuts



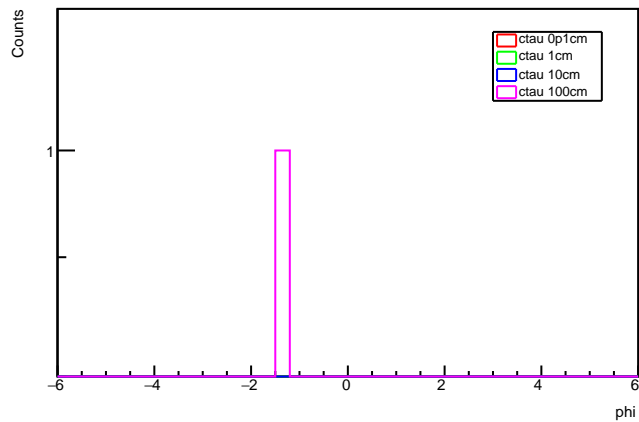
reco subleading Mu phi: n\_jet &gt;=1, j1pt &gt; 30 GeV



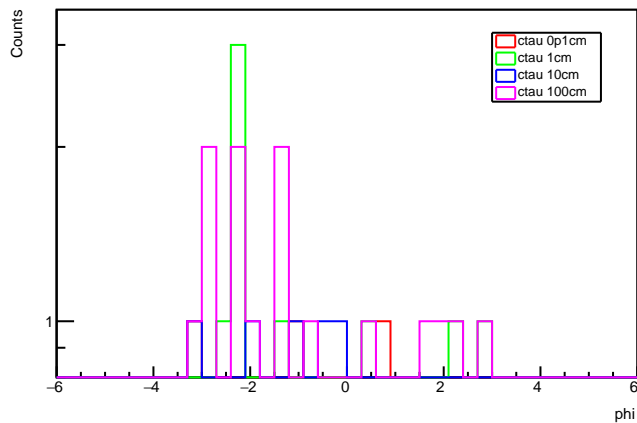
reco subleading Mu phi: MET &gt; 120 GeV



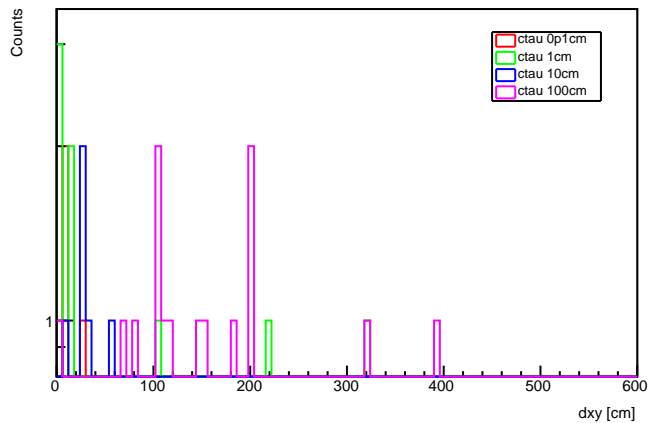
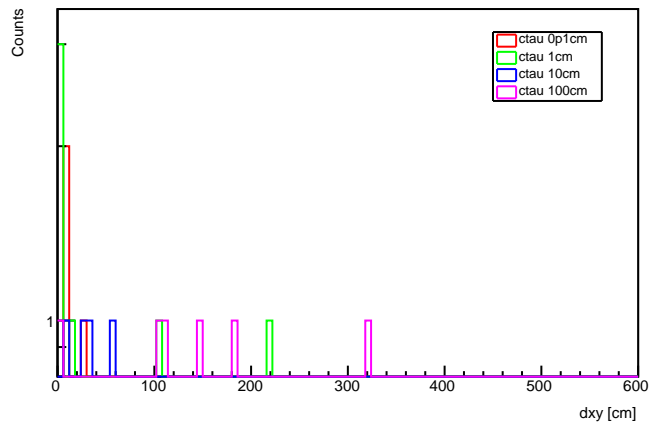
reco subleading Mu phi: j1pt &gt;120, at most 2 jets w/ pt &gt;30 GeV



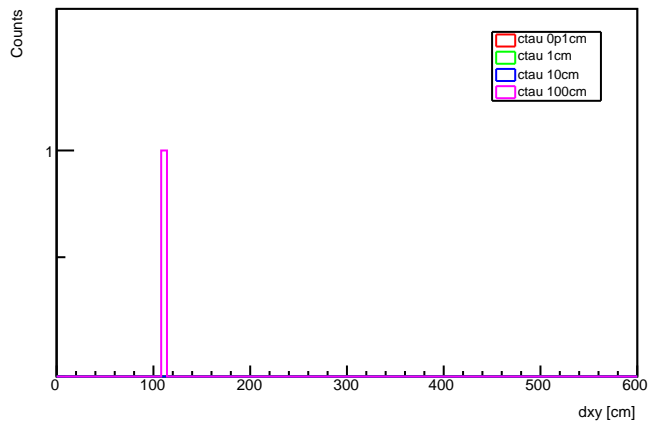
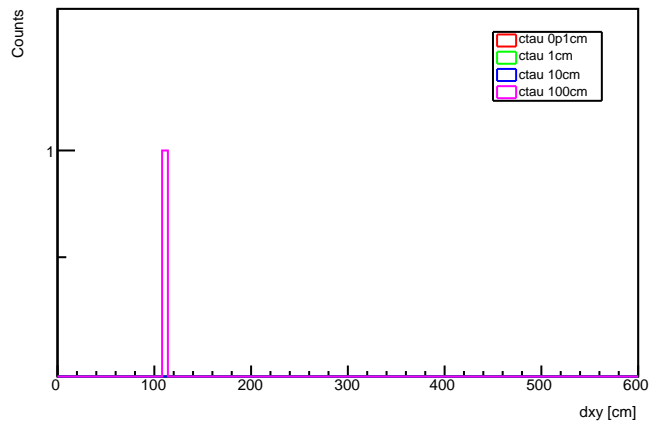
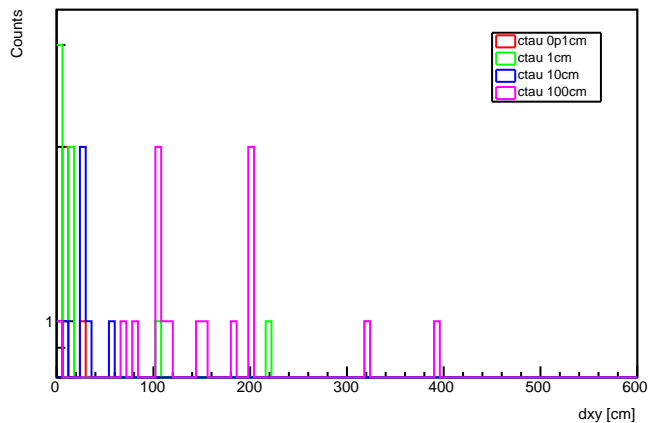
reco subleading Mu phi: at least 2 mu w/ pt &gt; 2 GeV and eta&lt;2.5



reco subleading Mu vxy: no cuts

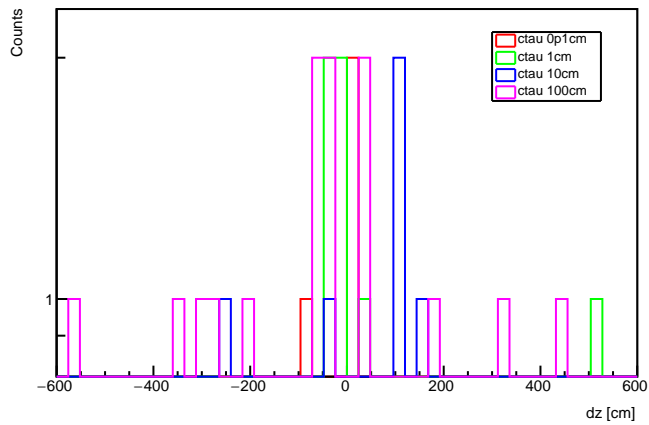
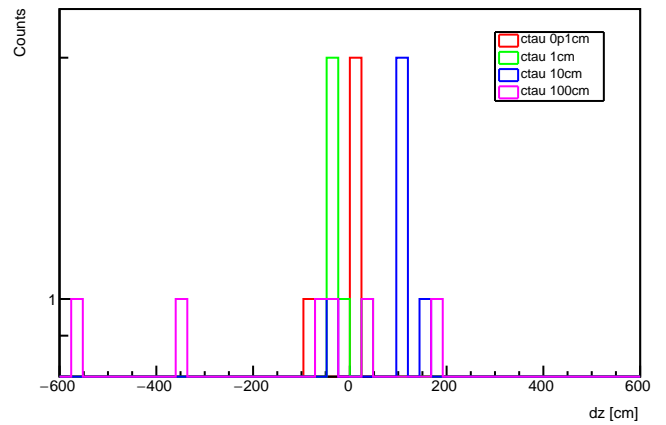
reco subleading Mu vxy:  $n_{\text{jet}} \geq 1$ ,  $j_{1\text{pt}} > 30$  GeV

reco subleading Mu vxy: MET &gt; 120 GeV

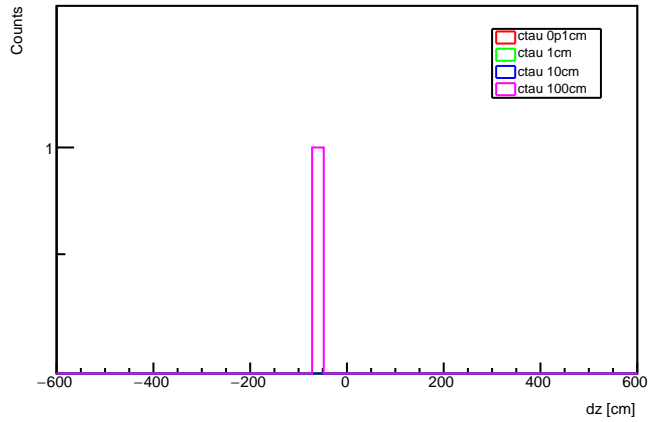
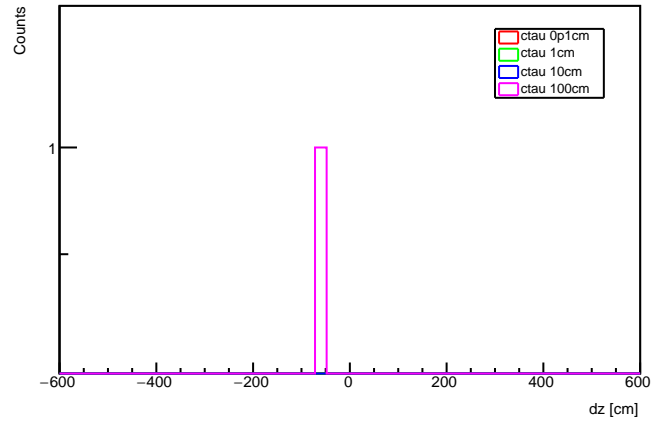
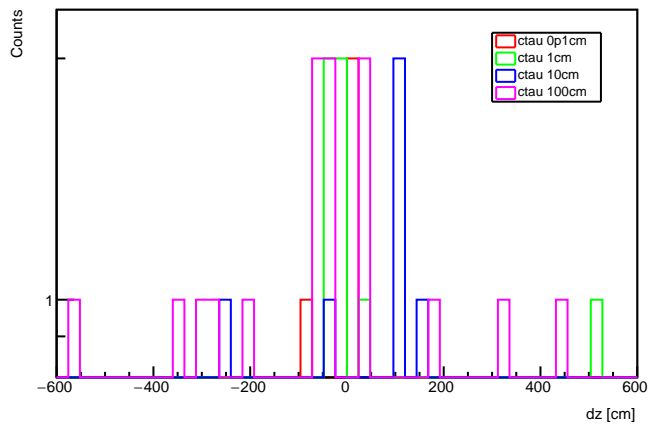
reco subleading Mu vxy:  $j_{1\text{pt}} > 120$ , at most 2 jets w/  $p_t > 30$  GeVreco subleading Mu vxy: at least 2 mu w/  $p_t > 2$  GeV and  $\eta < 2.5$ 



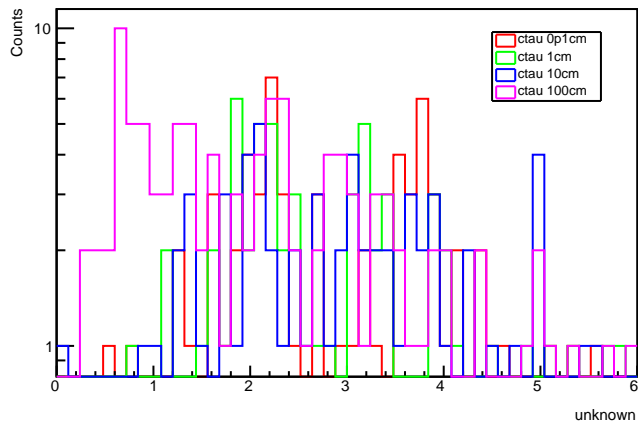
reco subleading Mu vz: no cuts

reco subleading Mu vz:  $n_{\text{jet}} \geq 1$ ,  $j_{1\text{pt}} > 30$  GeV

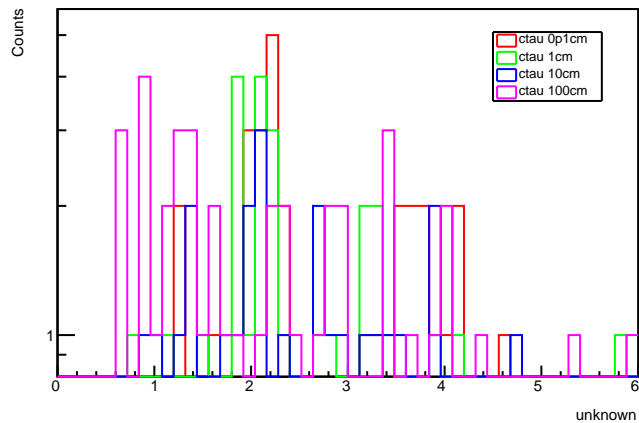
reco subleading Mu vz: MET &gt; 120 GeV

reco subleading Mu vz:  $j_{1\text{pt}} > 120$ , at most 2 jets w/  $p_t > 30$  GeVreco subleading Mu vz: at least 2 mu w/  $p_t > 2$  GeV and  $\eta < 2.5$ 

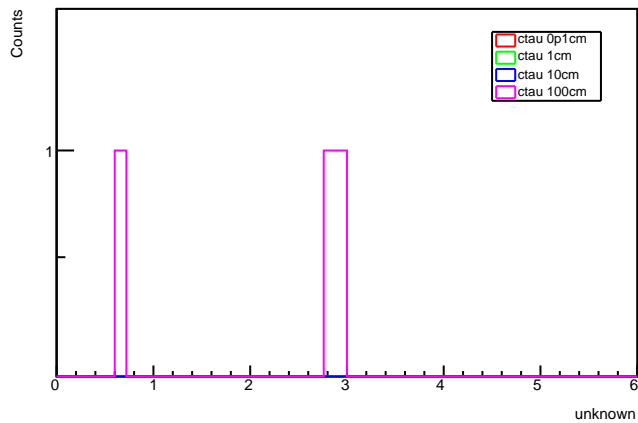
dR: reco leading mu and subleading mu: no cuts



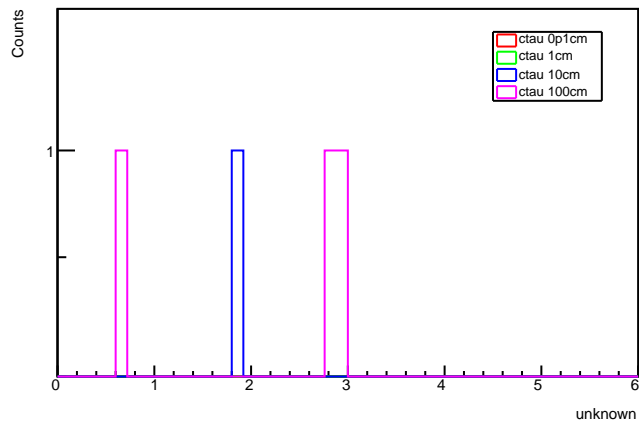
dR: reco leading mu and subleading mu: n\_jet &gt;=1, j1pt &gt; 30 GeV



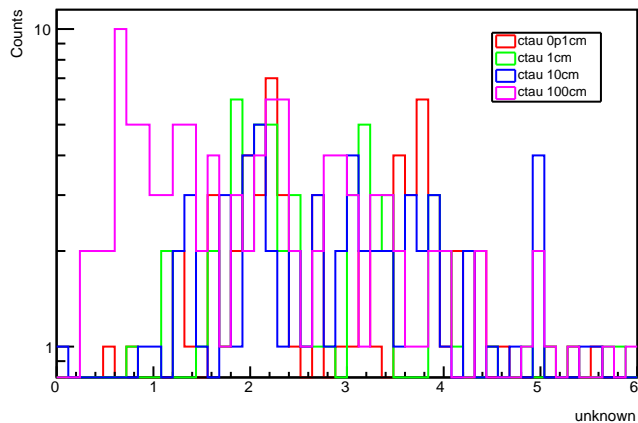
dR: reco leading mu and subleading mu: MET &gt; 120 GeV



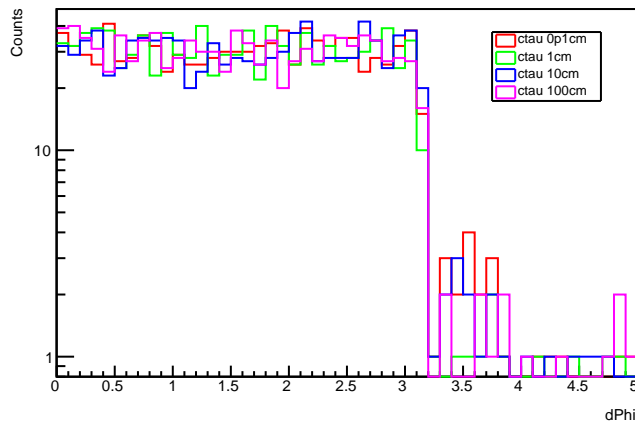
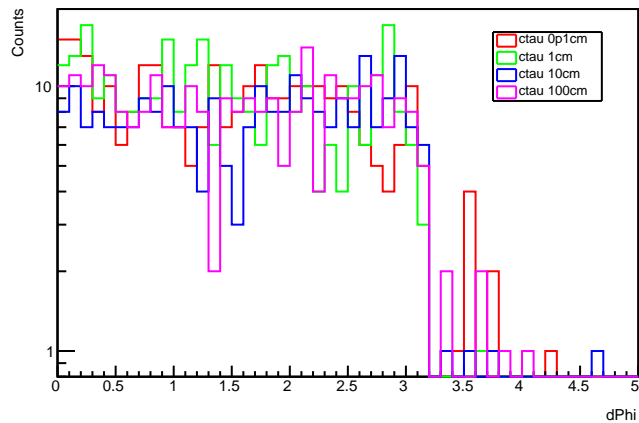
dR: reco leading mu and subleading mu: j1pt &gt;120, at most 2 jets w/ pt &gt;30 GeV



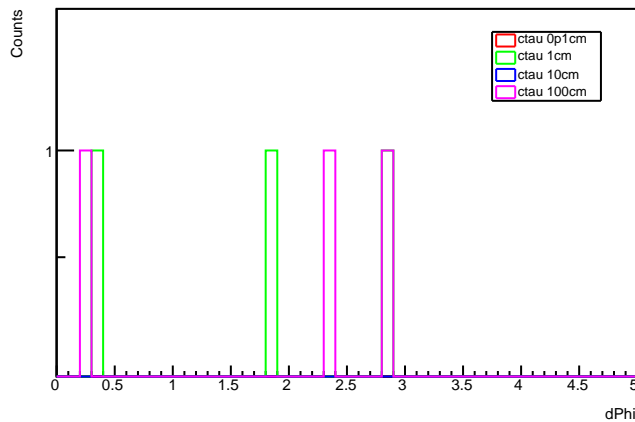
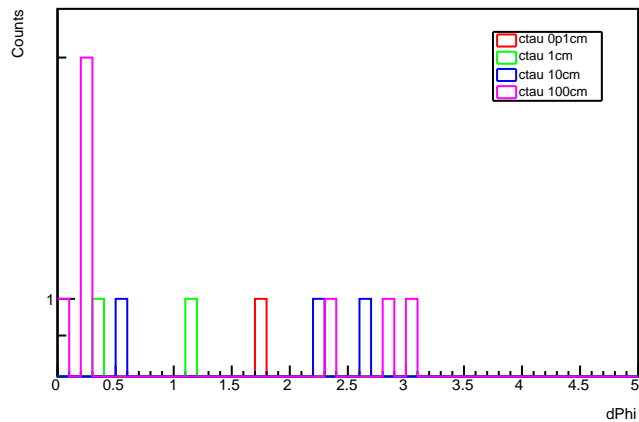
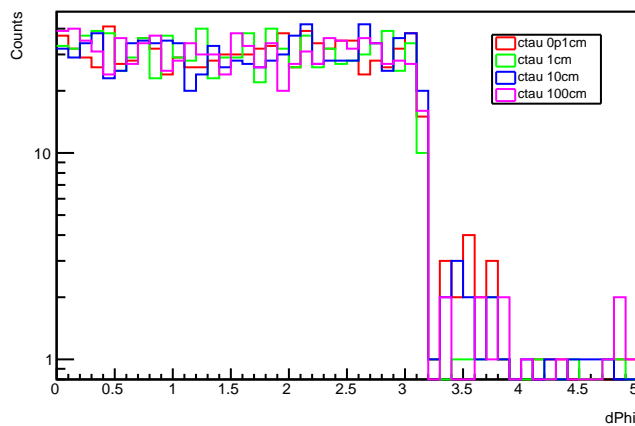
dR: reco leading mu and subleading mu: at least 2 mu w/ pt &gt; 2 GeV and eta&lt;2.5



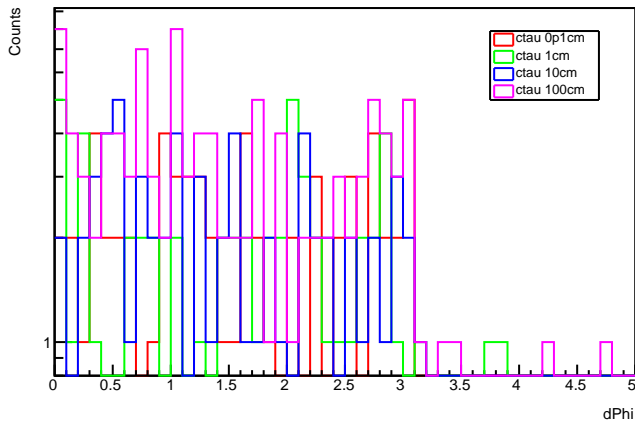
dPhi: reco MET and leading mu: no cuts

dPhi: reco MET and leading mu:  $n_{\text{jet}} \geq 1$ ,  $j_{1\text{pt}} > 30$  GeV

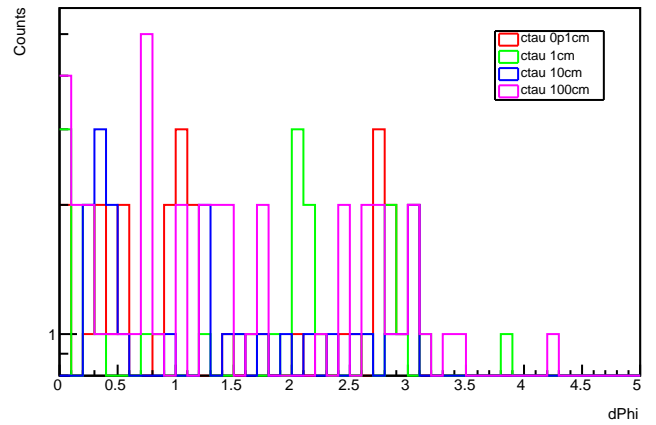
dPhi: reco MET and leading mu: MET &gt; 120 GeV

dPhi: reco MET and leading mu:  $j_{1\text{pt}} > 120$ , at most 2 jets w/  $p_{\text{T}} > 30$  GeVdPhi: reco MET and leading mu: at least 2 mu w/  $p_{\text{T}} > 2$  GeV and  $\eta < 2.5$ 

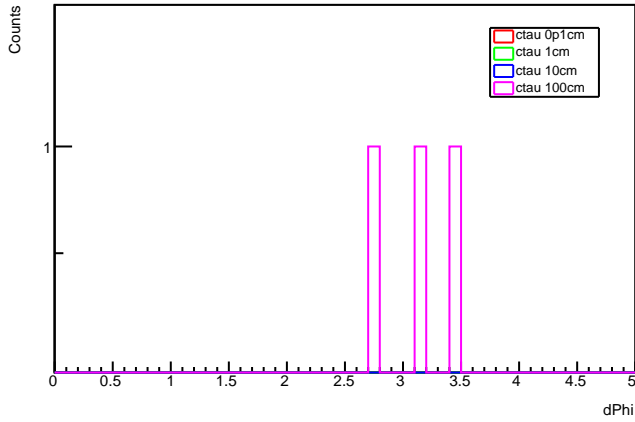
dPhi: reco leading mu and subleading mu: no cuts



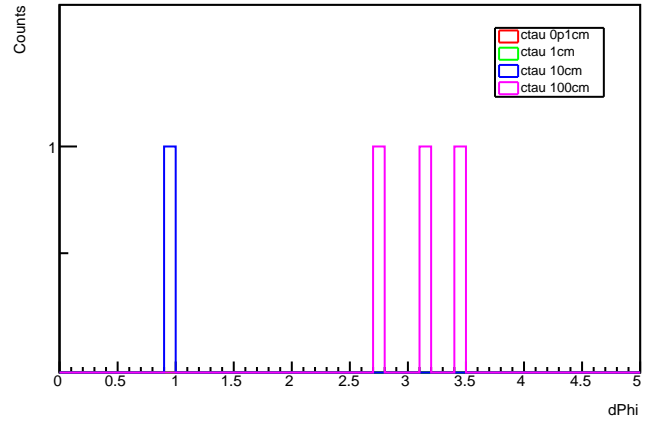
dPhi: reco leading mu and subleading mu: n\_jet >= 1, j1pt > 30 GeV



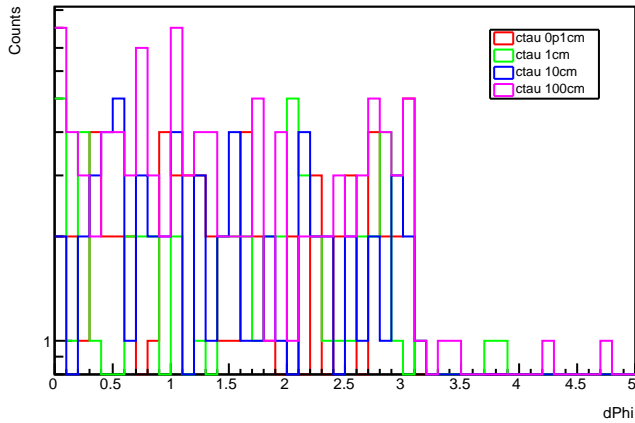
dPhi: reco leading mu and subleading mu: MET > 120 GeV



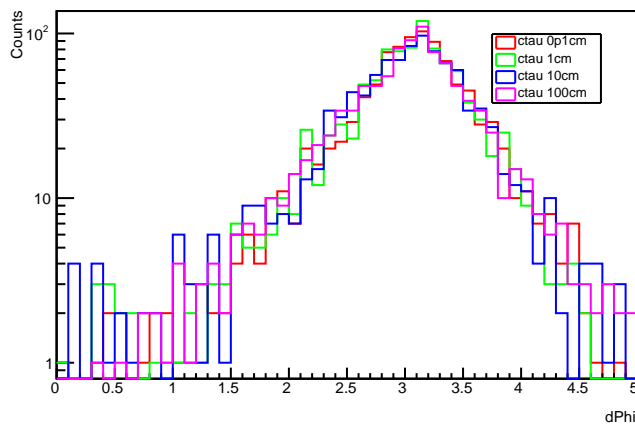
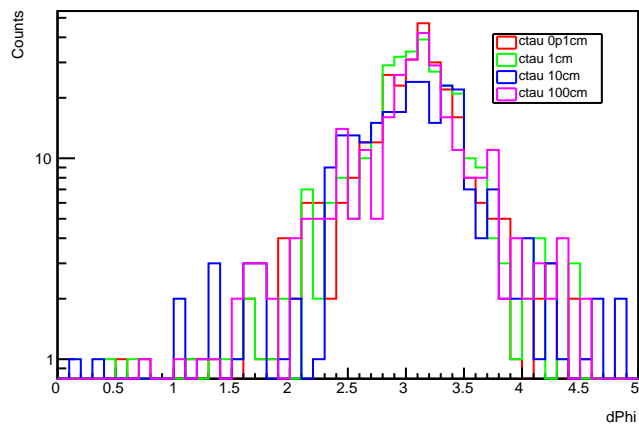
dPhi: reco leading mu and subleading mu: j1pt > 120, at most 2 jets w/ pt > 30 GeV



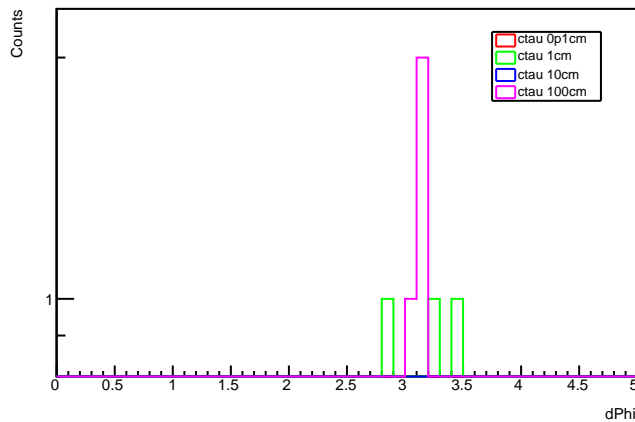
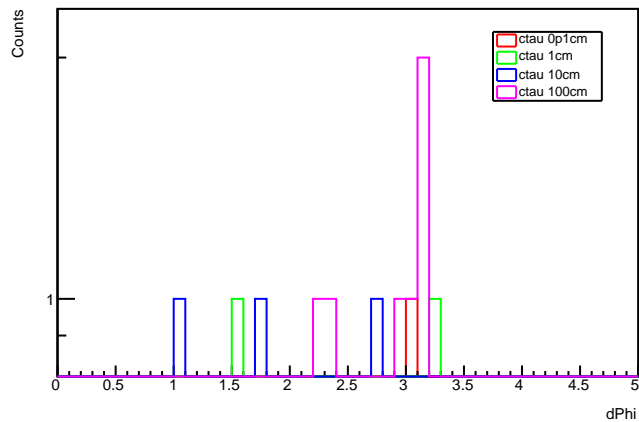
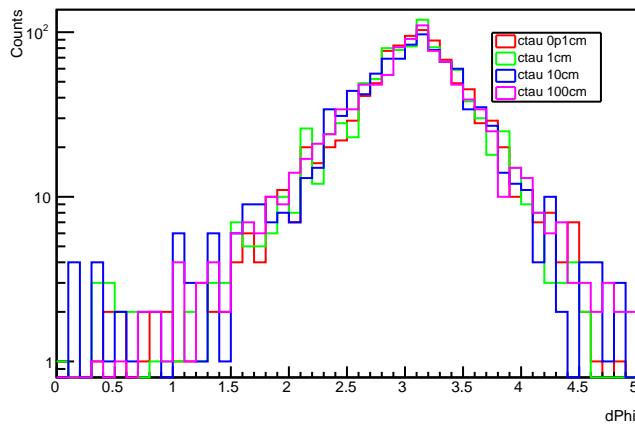
dPhi: reco leading mu and subleading mu: at least 2 mu w/ pt > 2 GeV and eta < 2.5



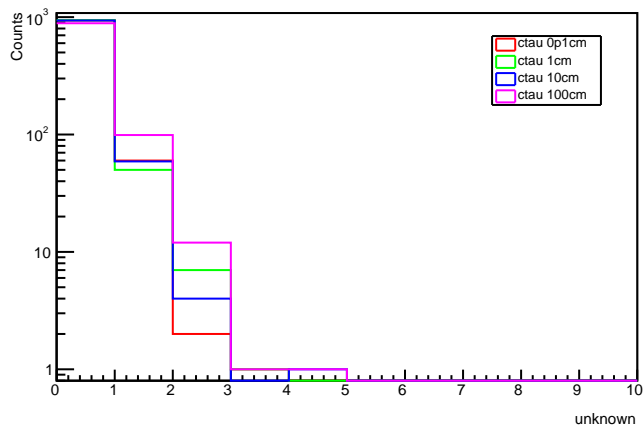
dPhi: reco MET and leading jet: no cuts

dPhi: reco MET and leading jet:  $n_{\text{jet}} \geq 1$ ,  $j_{1\text{pt}} > 30$  GeV

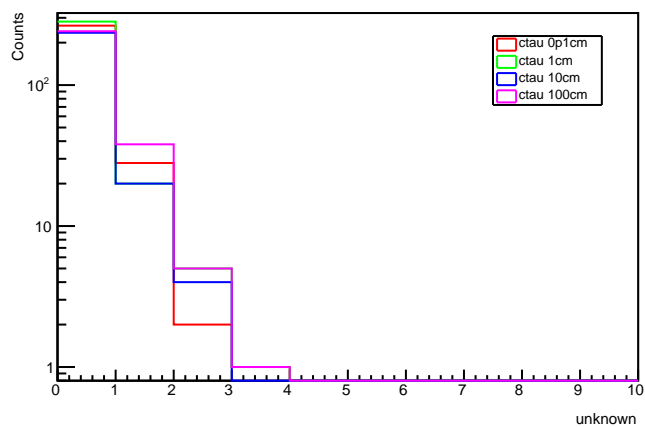
dPhi: reco MET and leading jet: MET &gt; 120 GeV

dPhi: reco MET and leading jet:  $j_{1\text{pt}} > 120$ , at most 2 jets w/  $p_t > 30$  GeVdPhi: reco MET and leading jet: at least 2 mu w/  $p_t > 2$  GeV and  $\eta < 2.5$ 

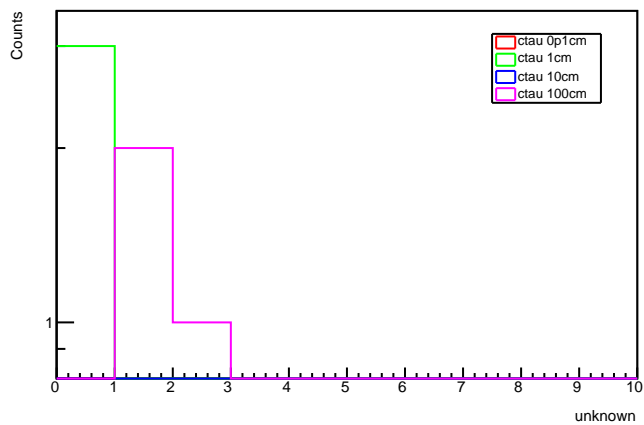
reco number of jets: no cuts



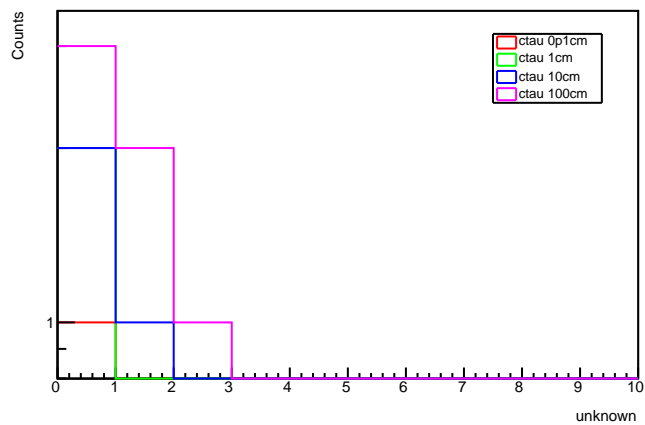
reco number of jets: n\_jet >= 1, j1pt > 30 GeV



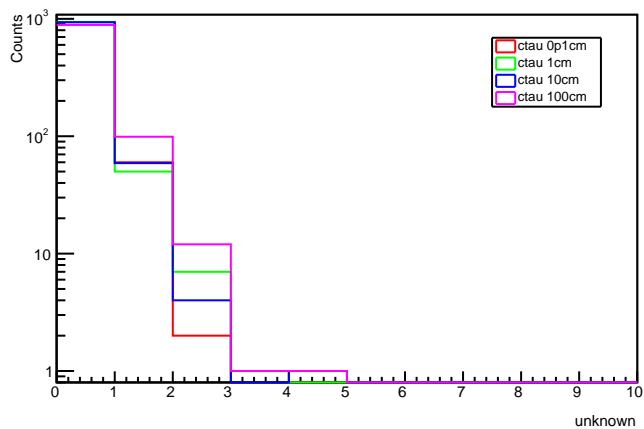
reco number of jets: MET > 120 GeV



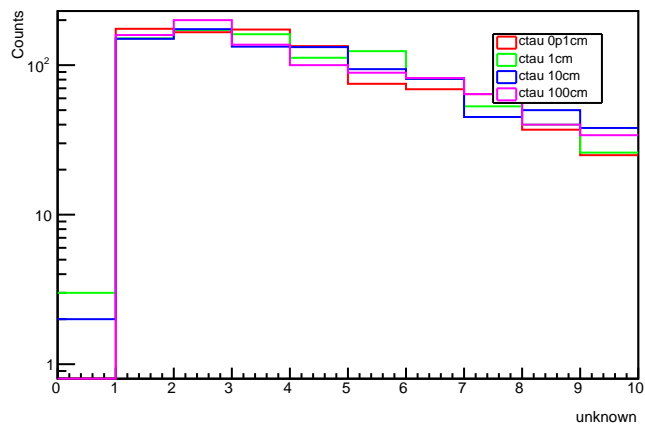
reco number of jets: j1pt > 120, at most 2 jets w/ pt > 30 GeV



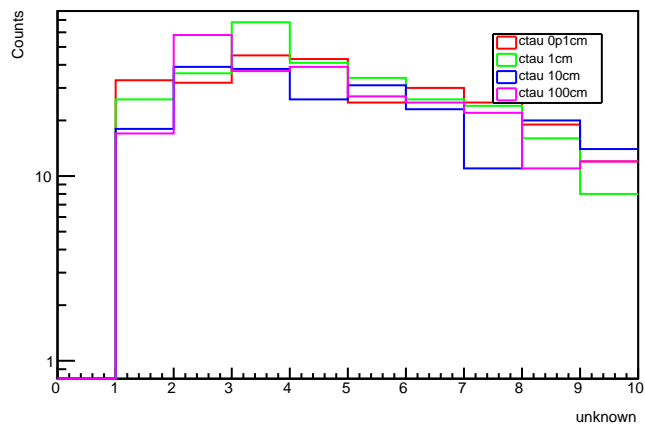
reco number of jets: at least 2 mu w/ pt > 2 GeV and eta < 2.5



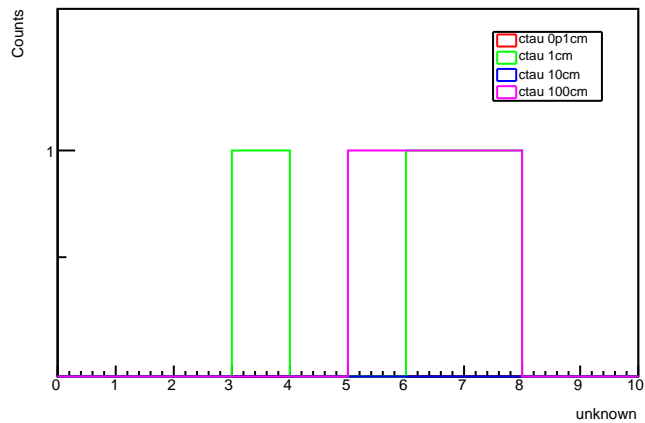
reco number of mu: no cuts



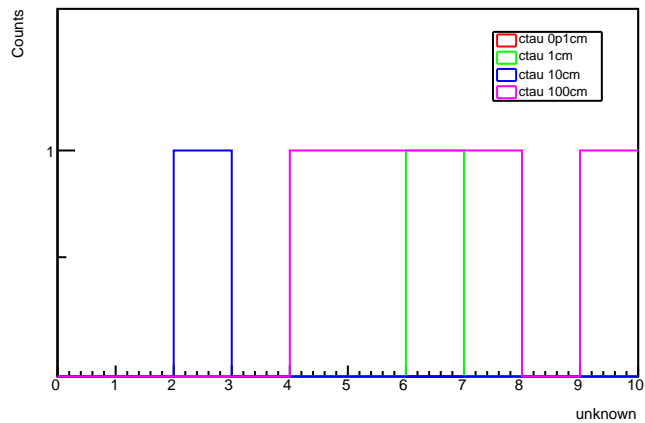
reco number of mu: n\_jet &gt;=1, j1pt &gt; 30 GeV



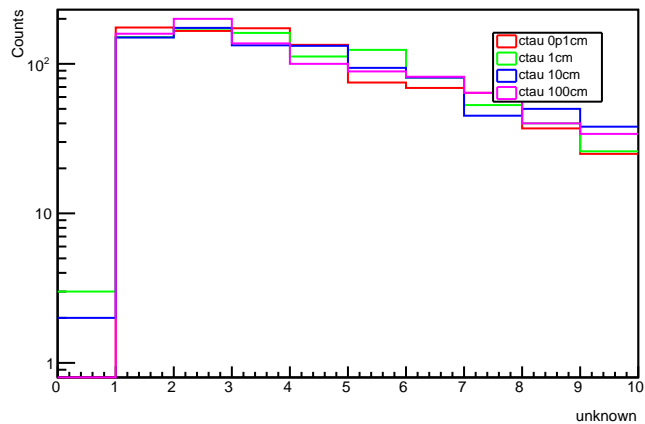
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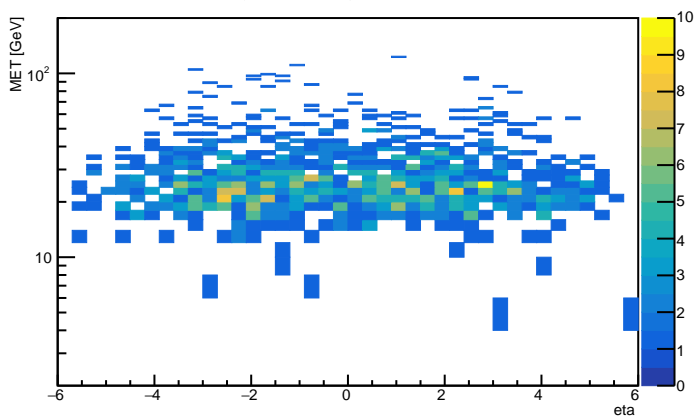
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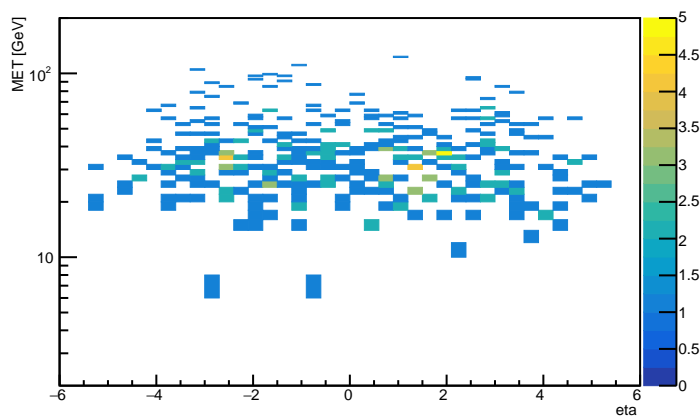
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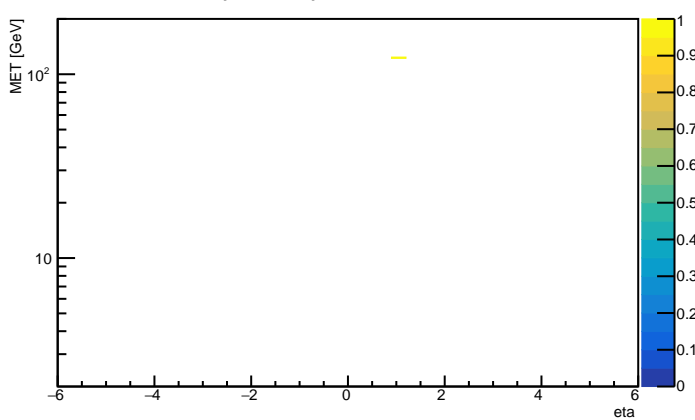
ctau 0p1cm gen leading Met eta vs pt: no cuts



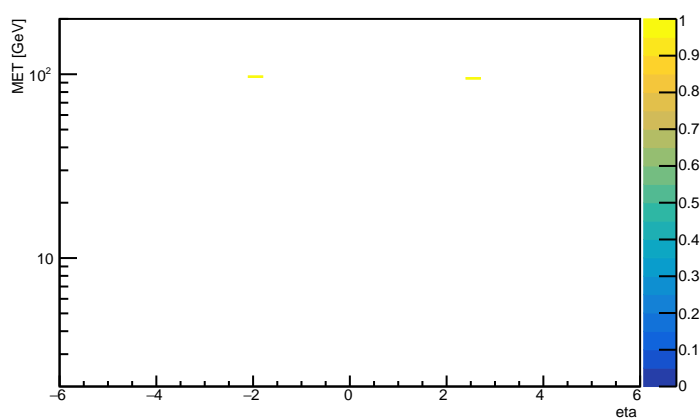
ctau 0p1cm gen leading Met eta vs pt:  $n_{\text{jet}} \geq 1$ ,  $j_{1\text{pt}} > 30$  GeV



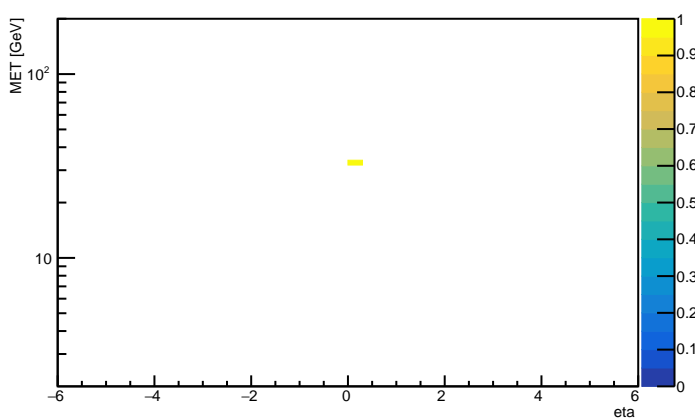
ctau 0p1cm gen leading Met eta vs pt: MET > 120 GeV



ctau 0p1cm gen leading Met eta vs pt:  $j_{1\text{pt}} > 120$ , at most 2 jets w/  $p_t > 30$  GeV

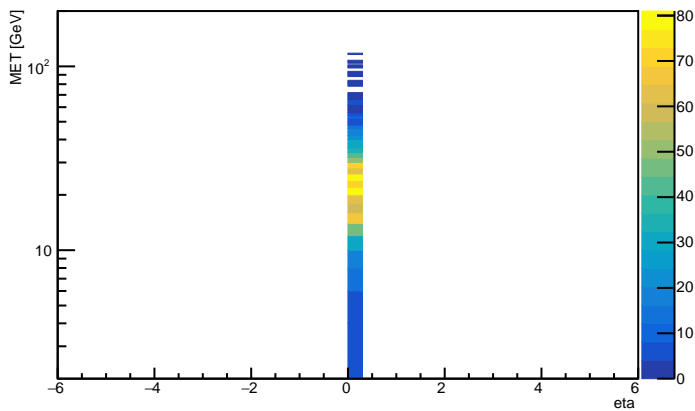


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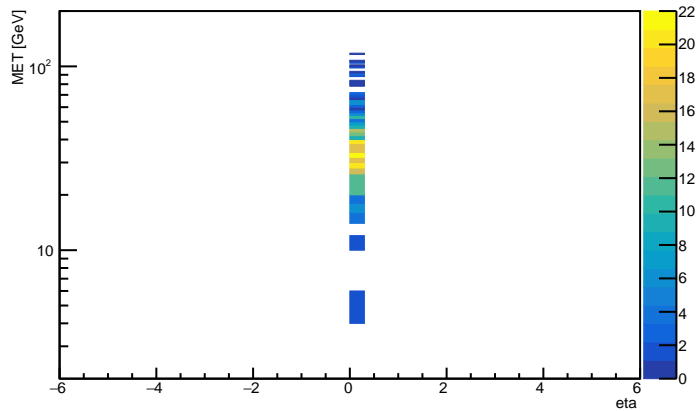




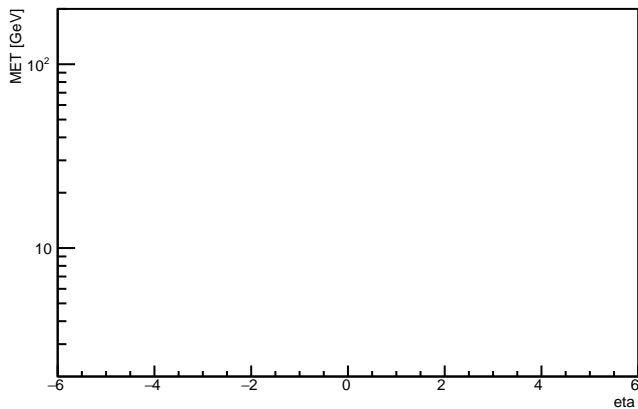
ctau 0p1cm reco leading Met eta vs pt: no cuts



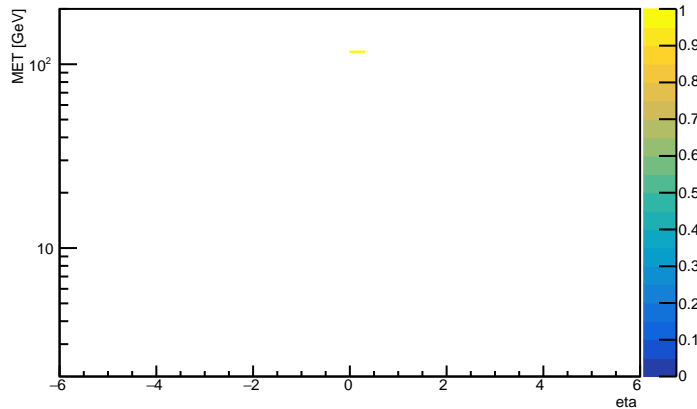
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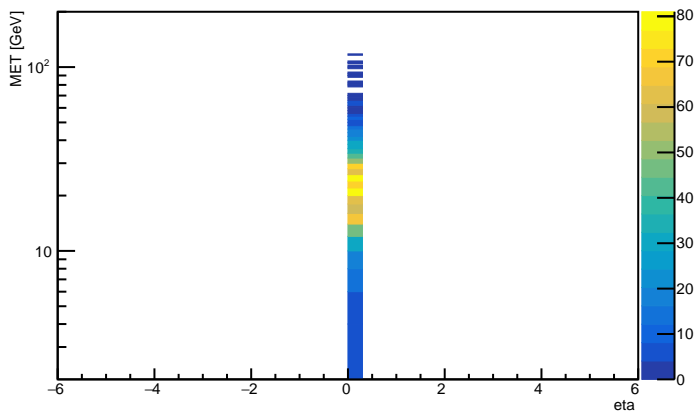
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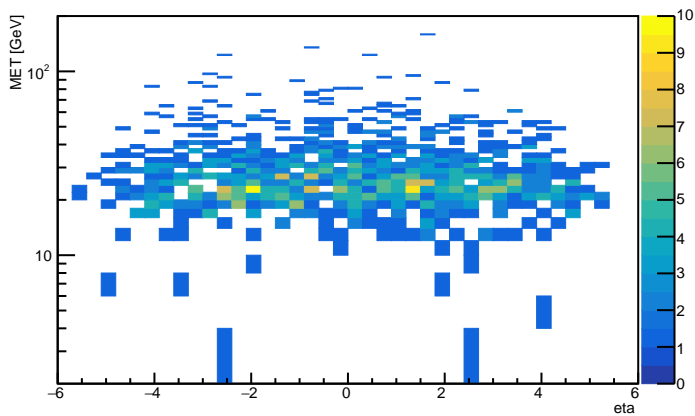
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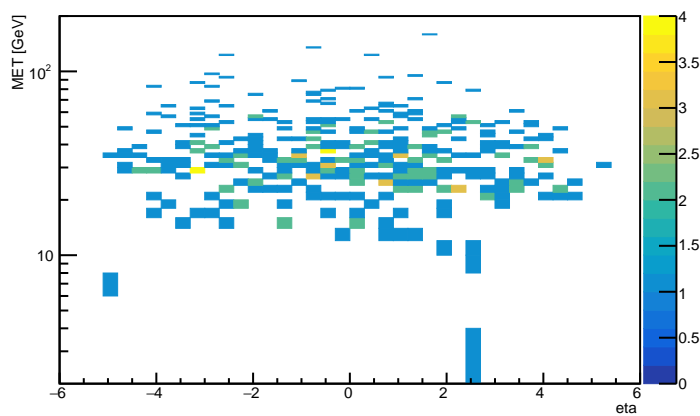
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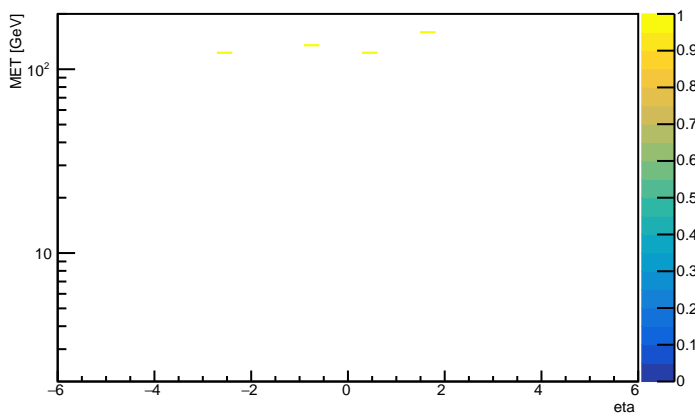
ctau 1cm gen leading Met eta vs pt: no cuts



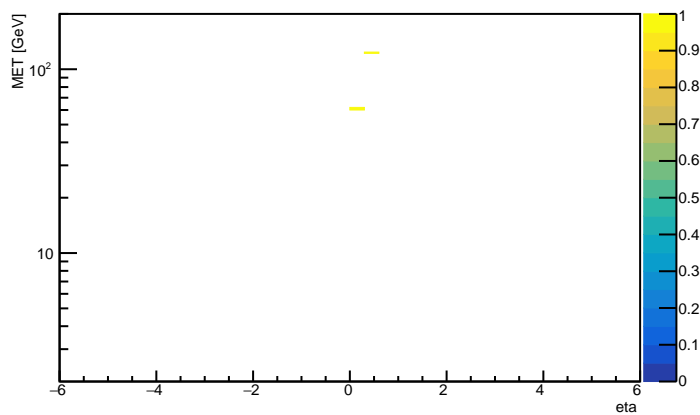
ctau 1cm gen leading Met eta vs pt:  $n_{\text{jet}} \geq 1$ ,  $j1_{\text{pt}} > 30$  GeV



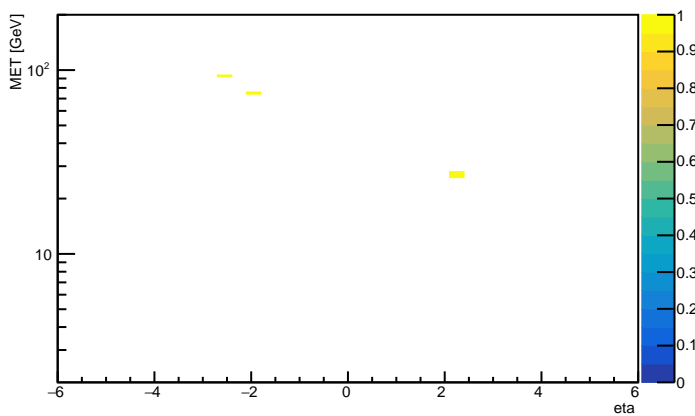
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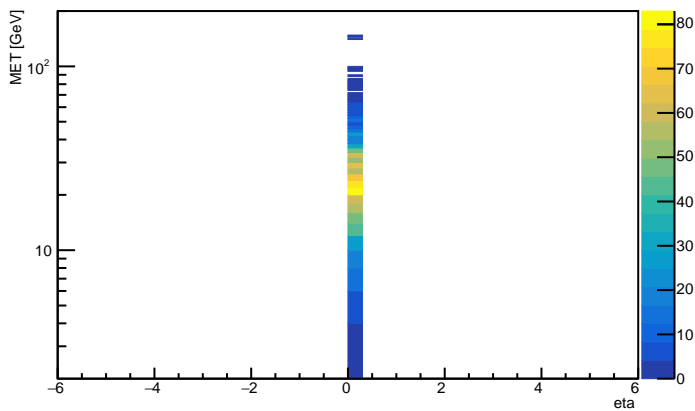
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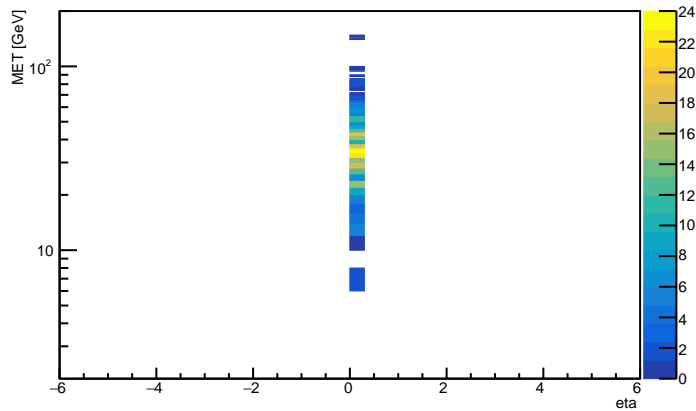
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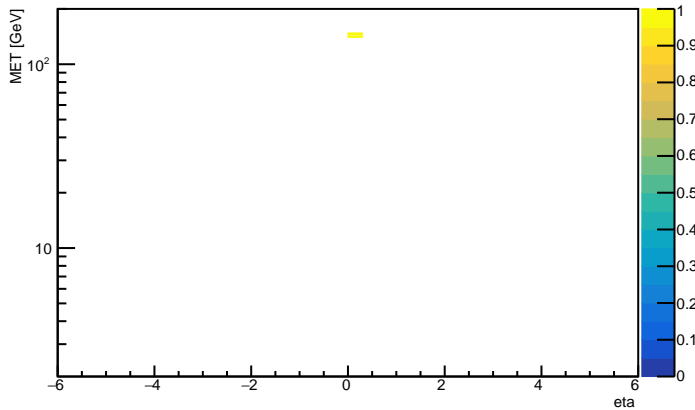
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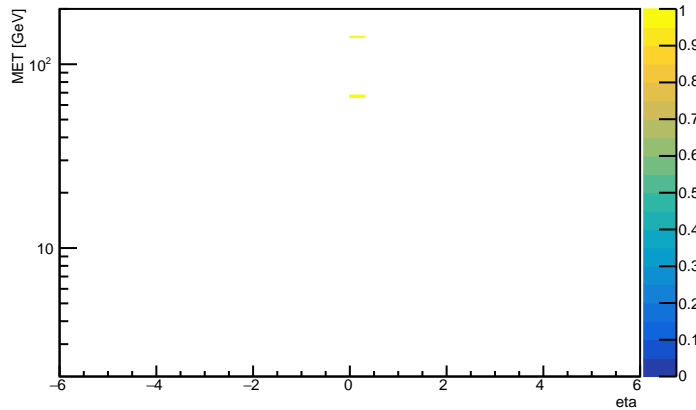
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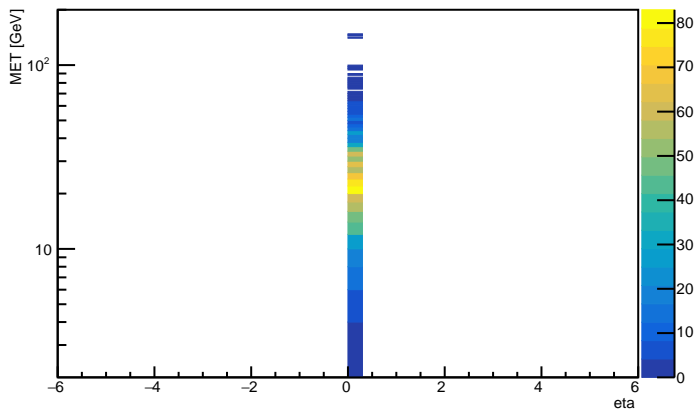
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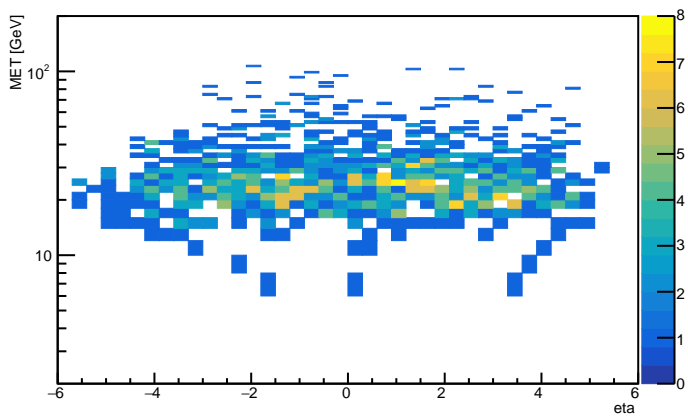
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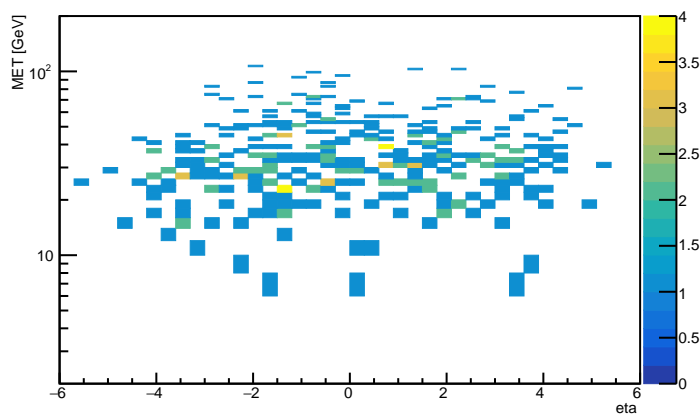
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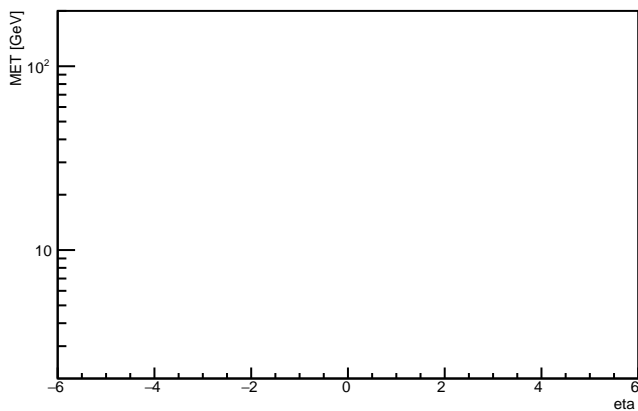
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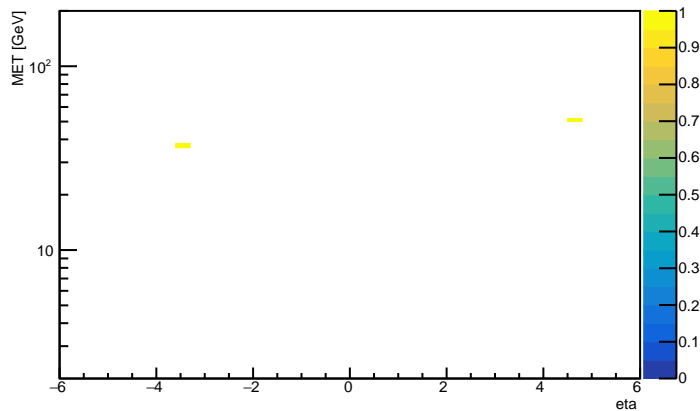
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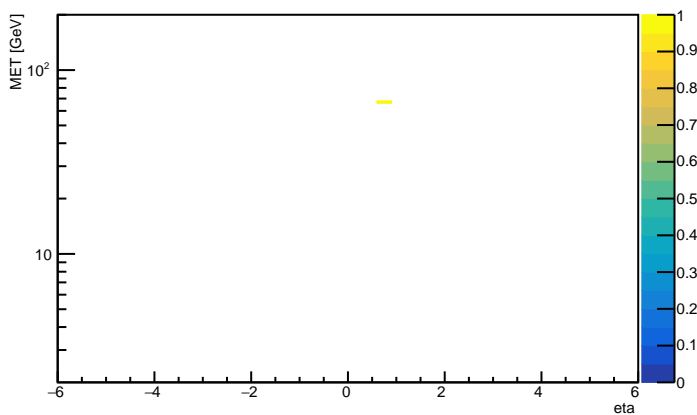
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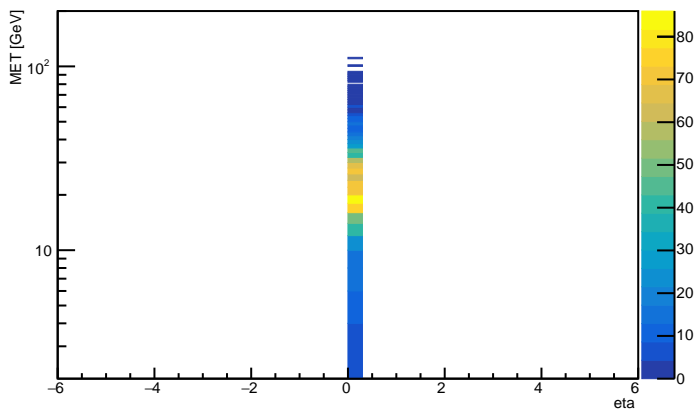
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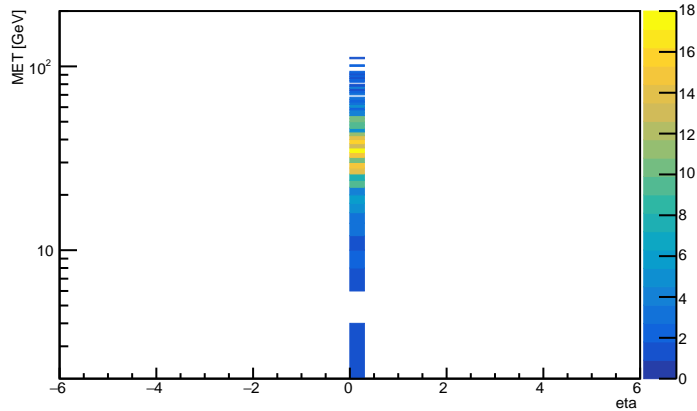
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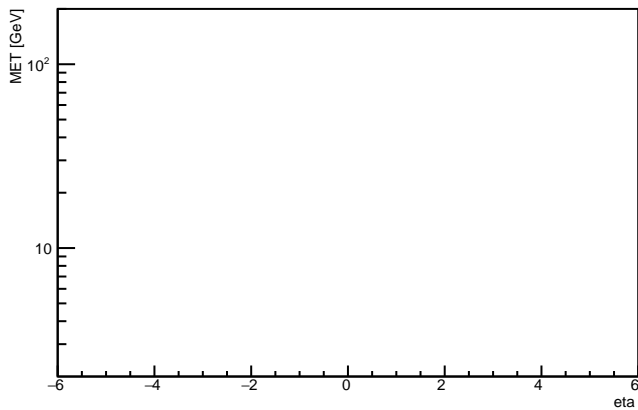
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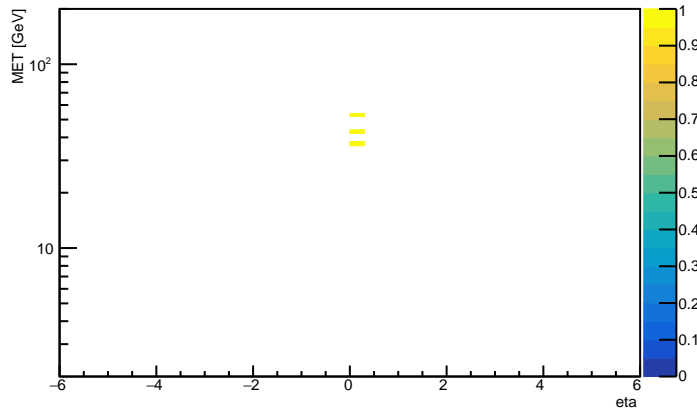
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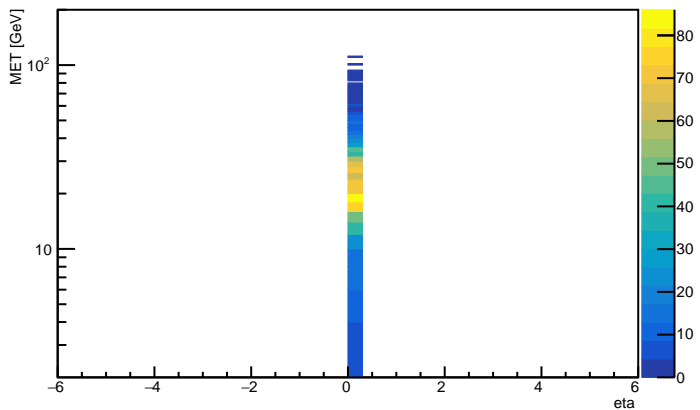
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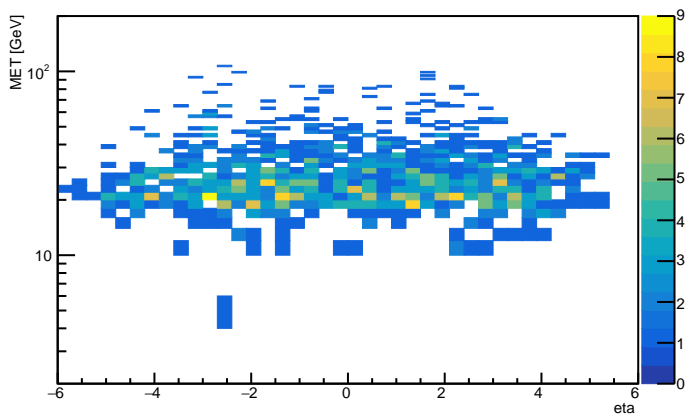
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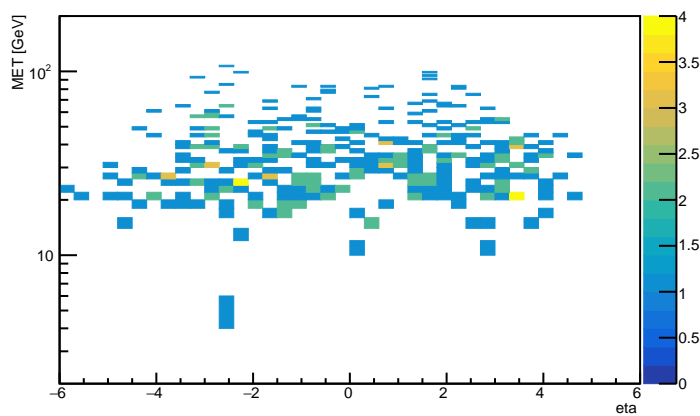
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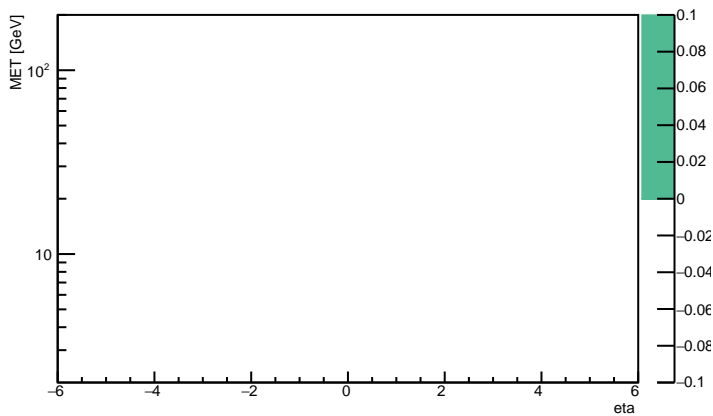
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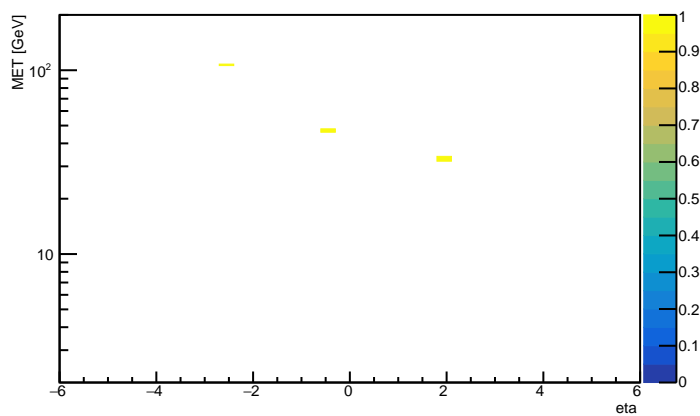
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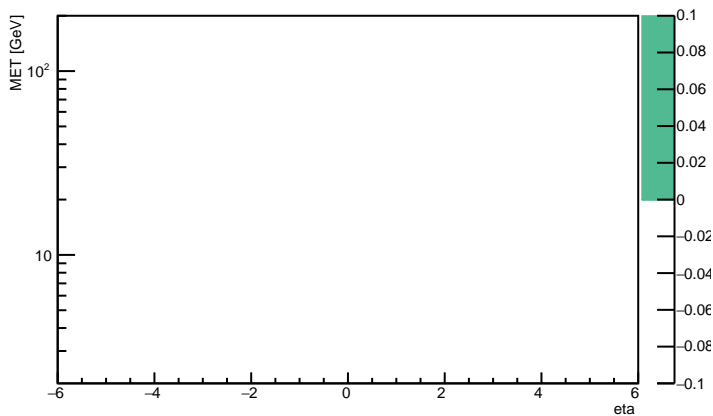
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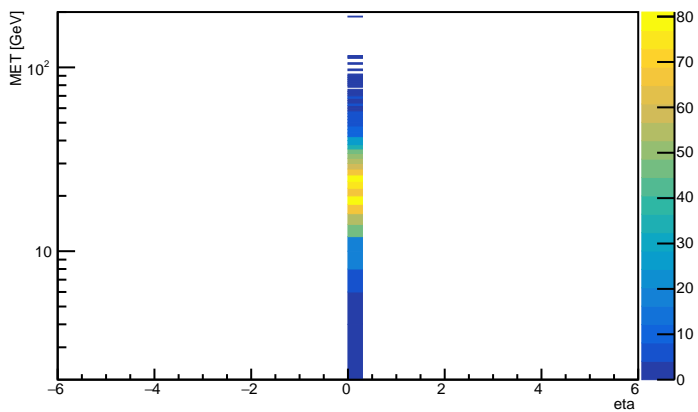
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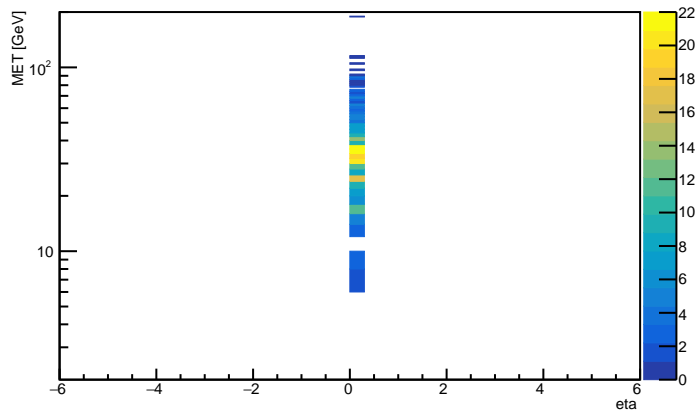
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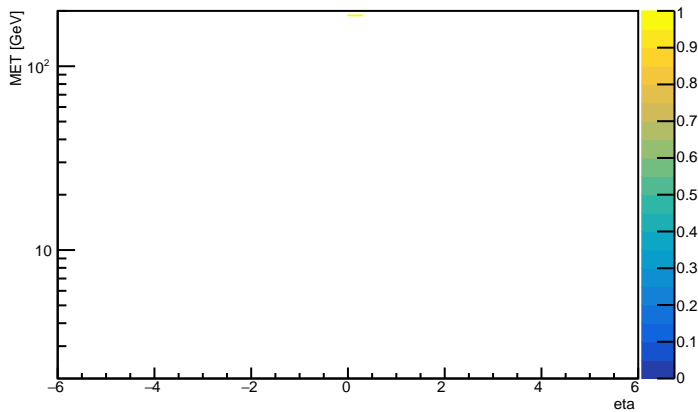
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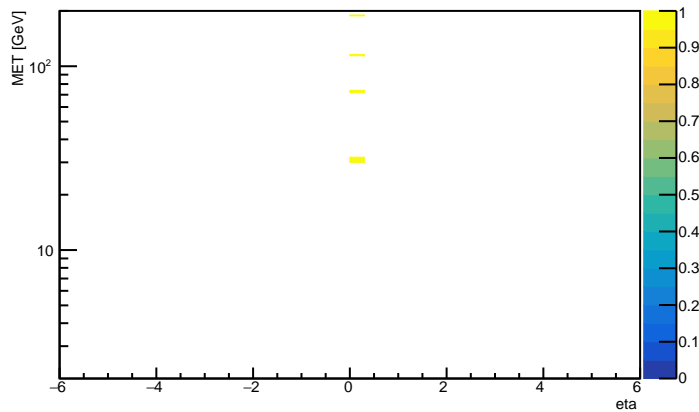
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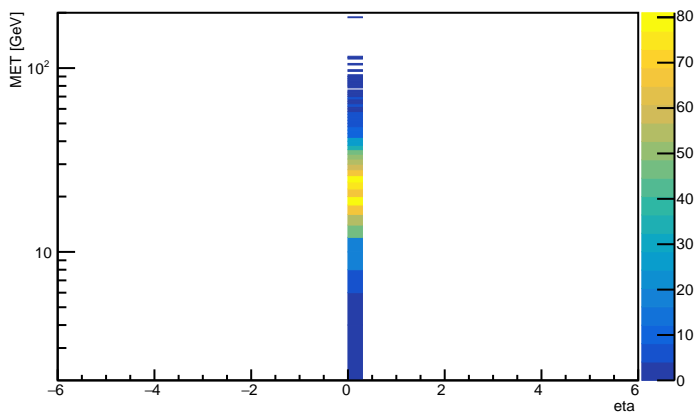
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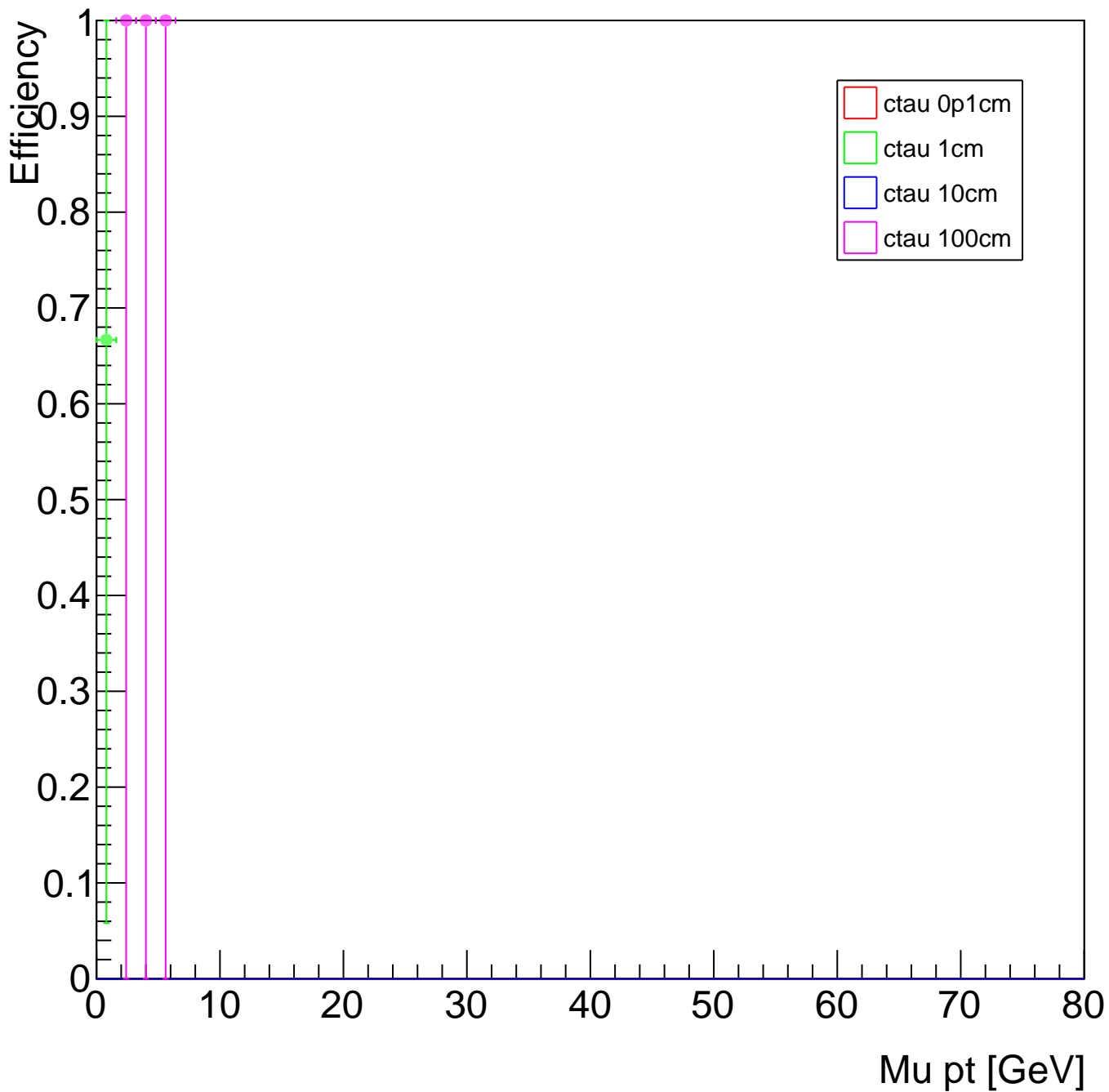
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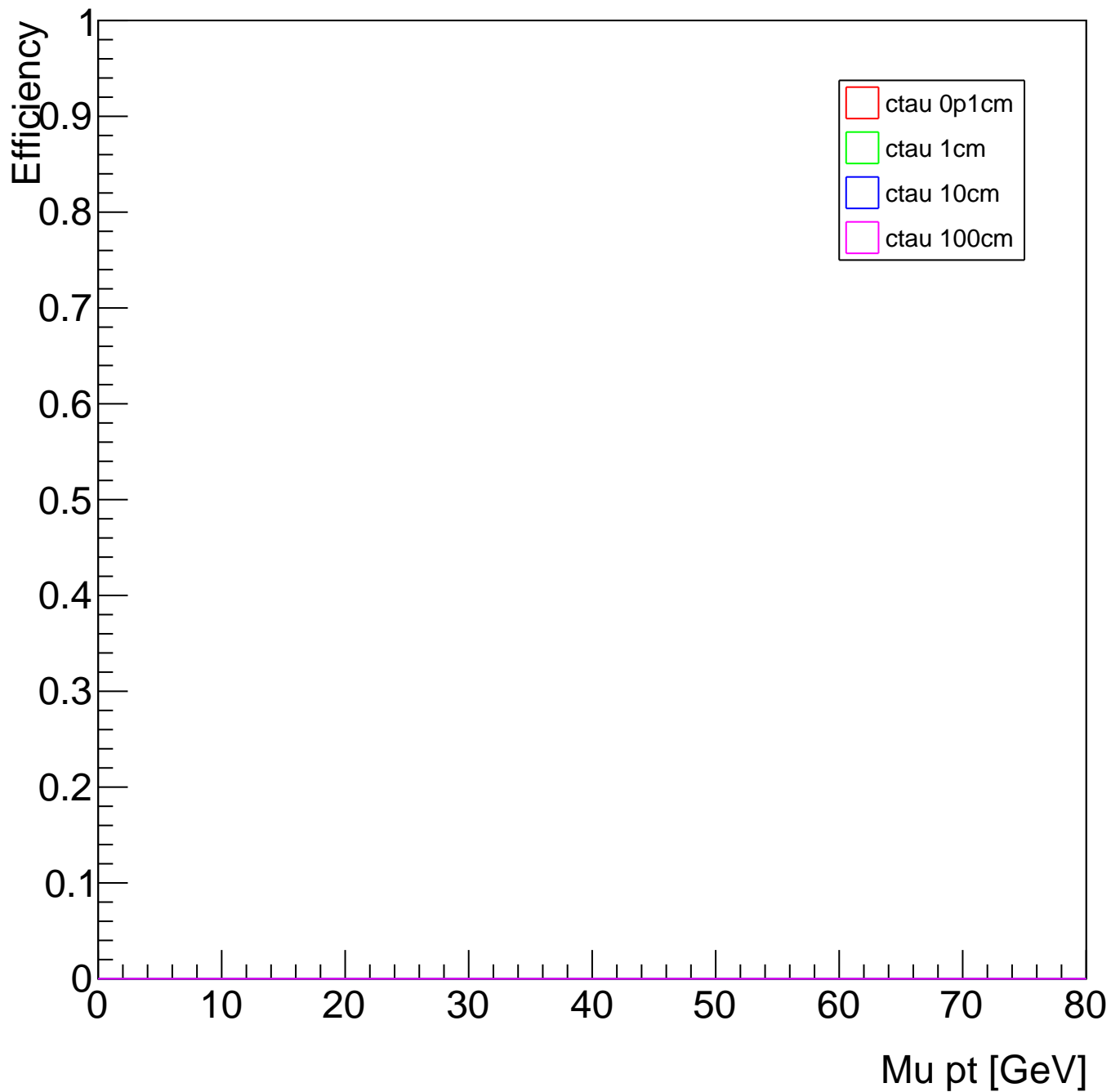
**efficiencies**



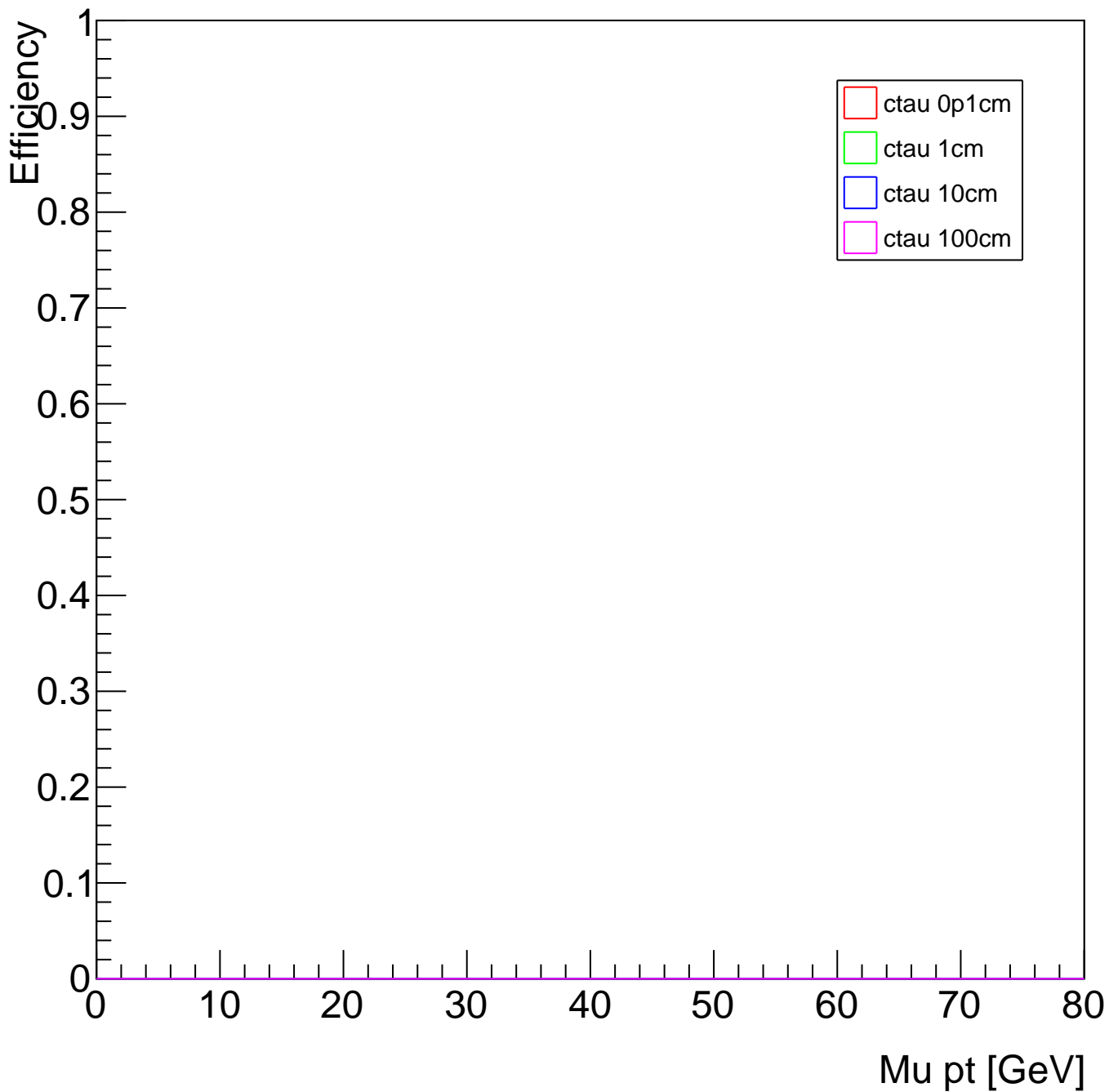
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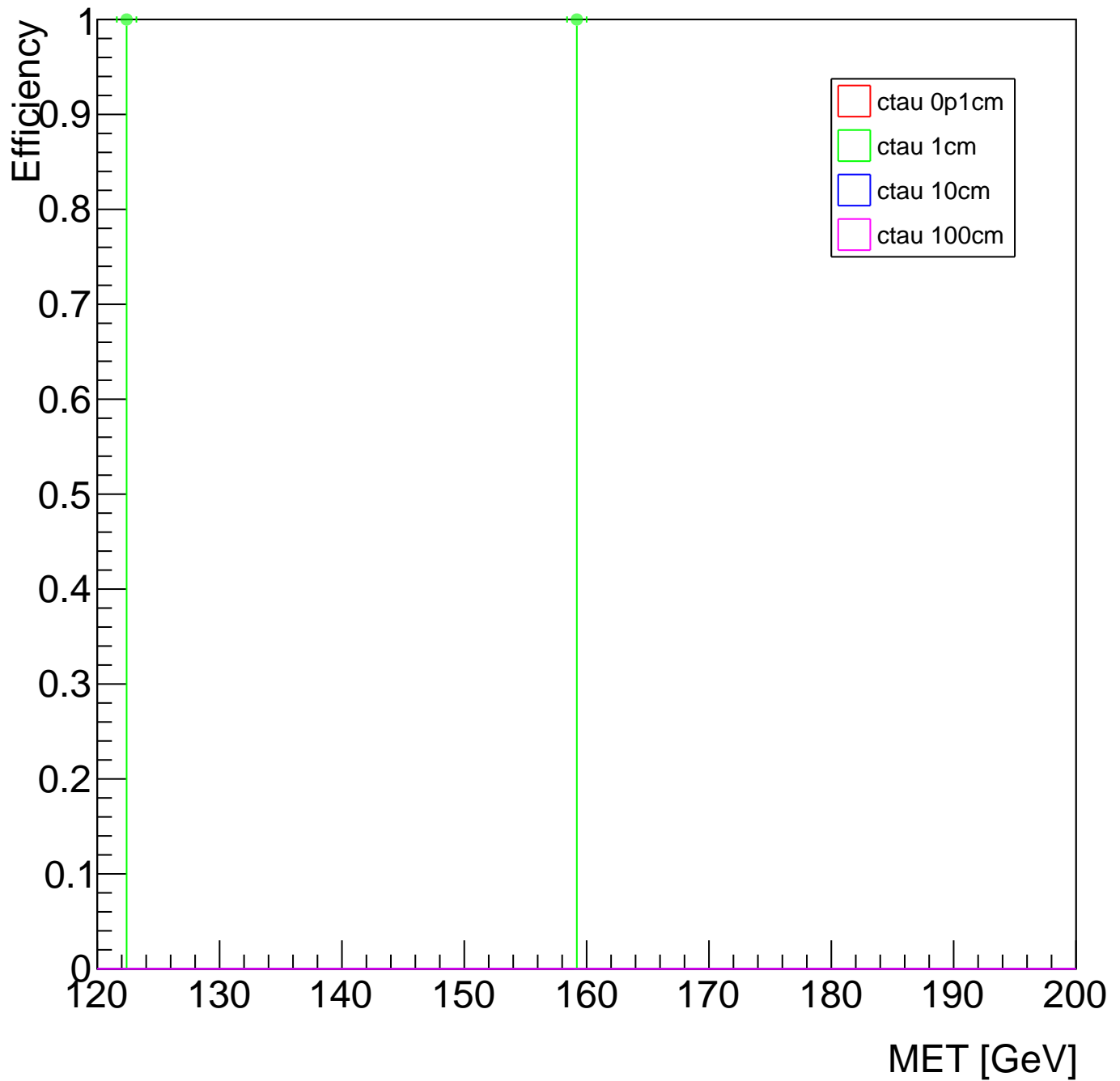
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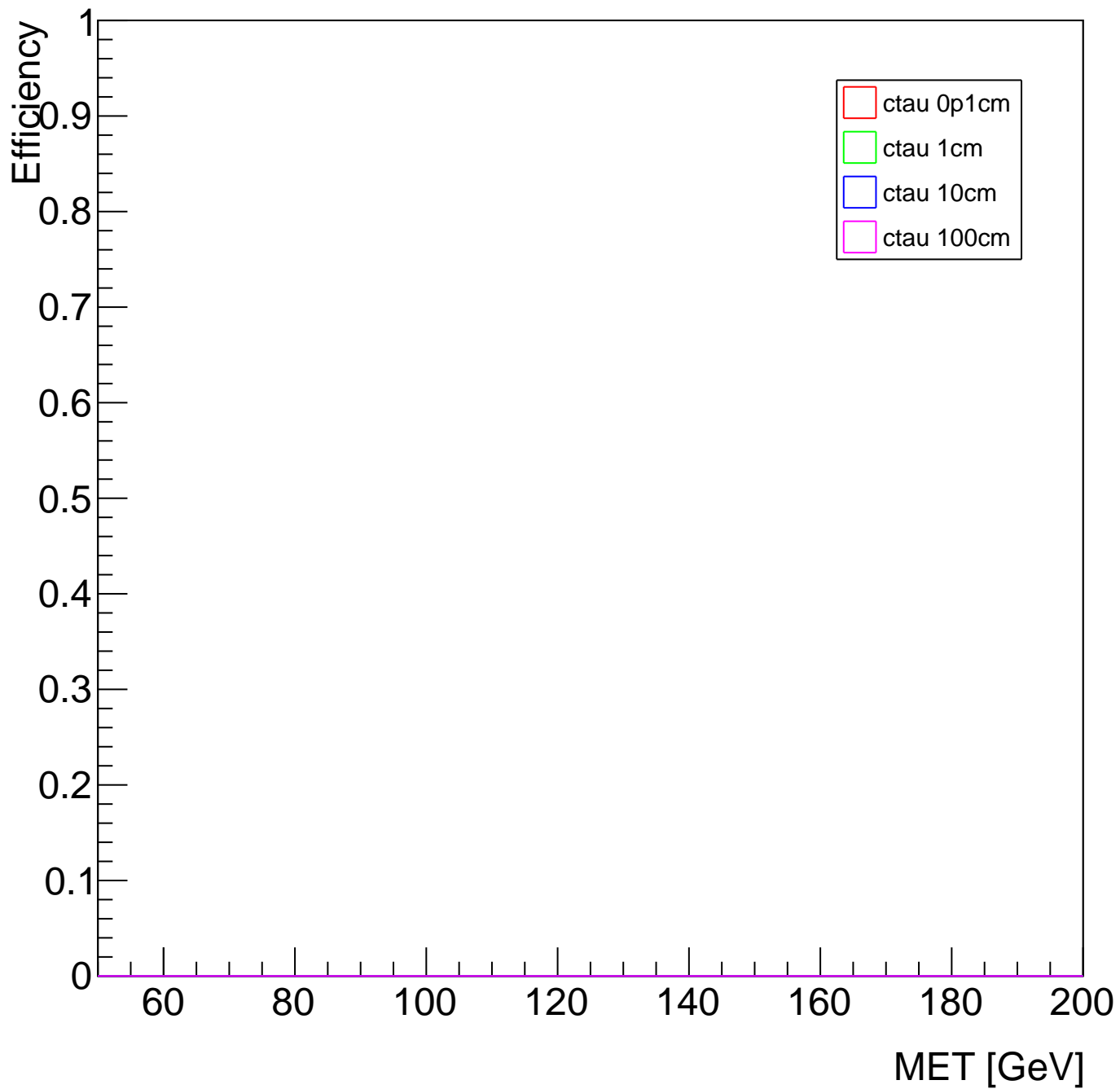
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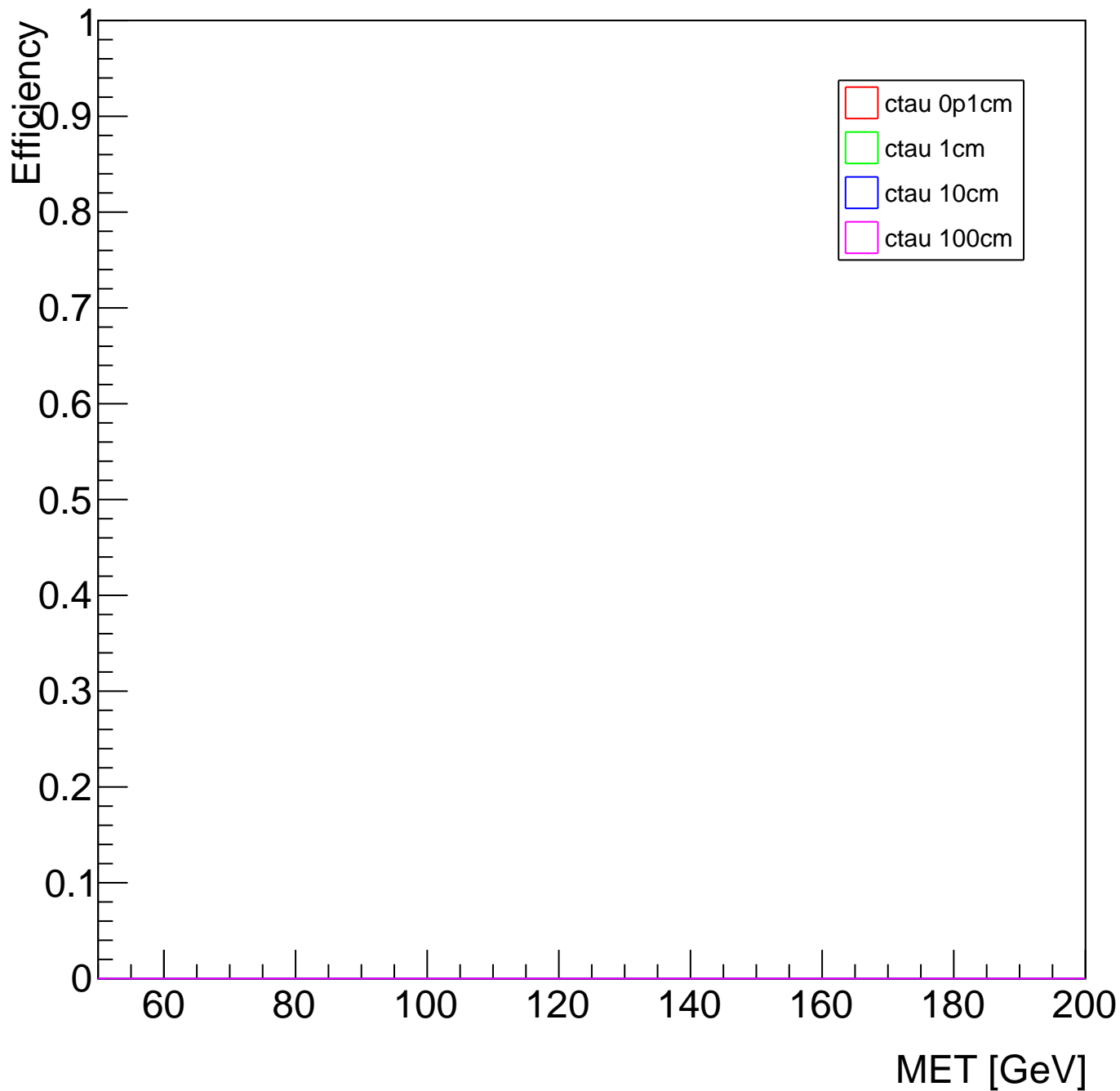
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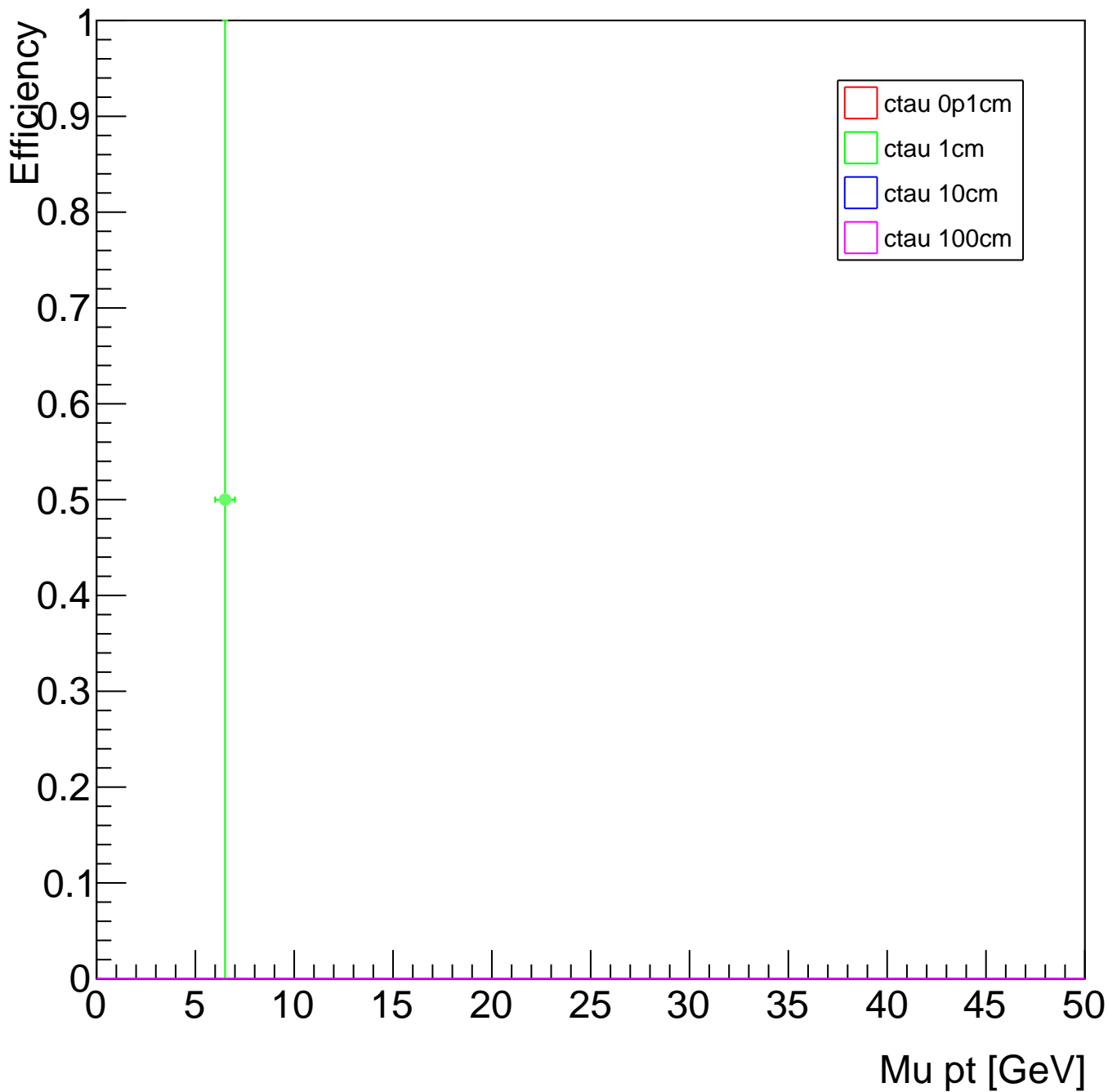
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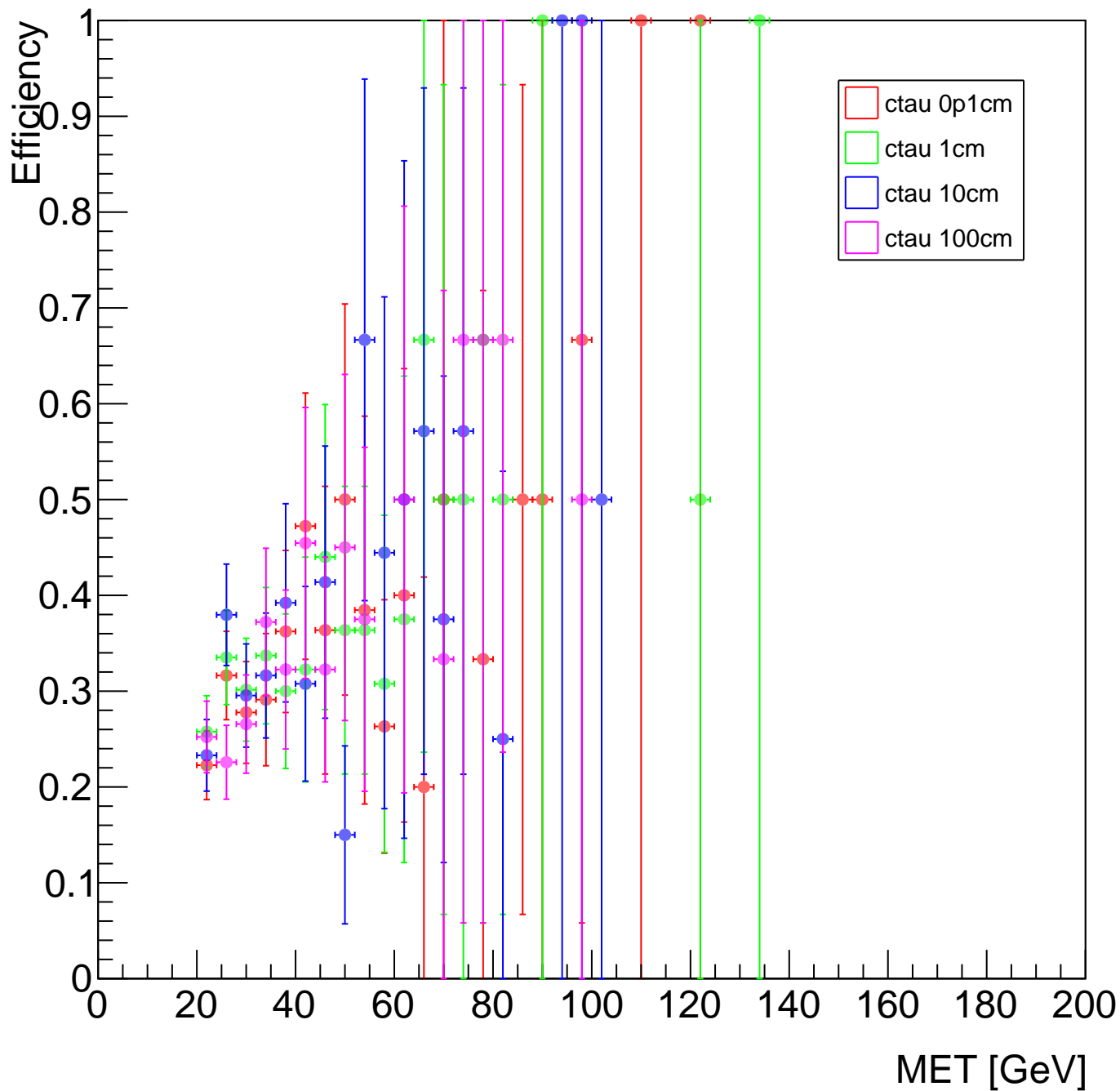
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# recoefficiency mu



# recoefficiency met





# recoefficiency met

