

ctau 0p1cm

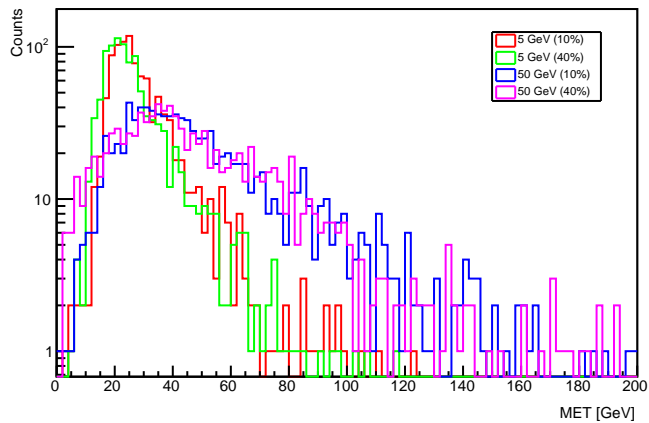
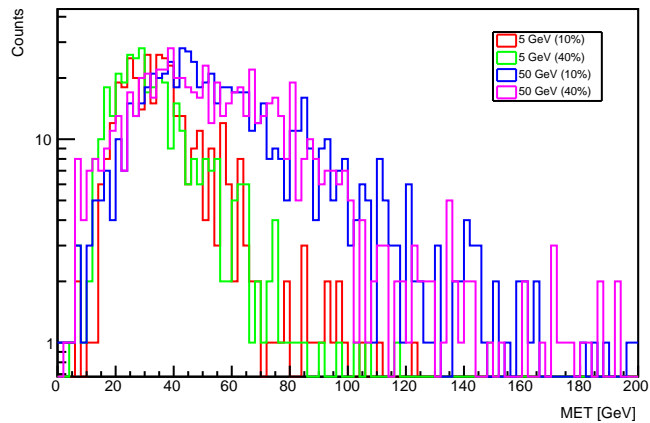
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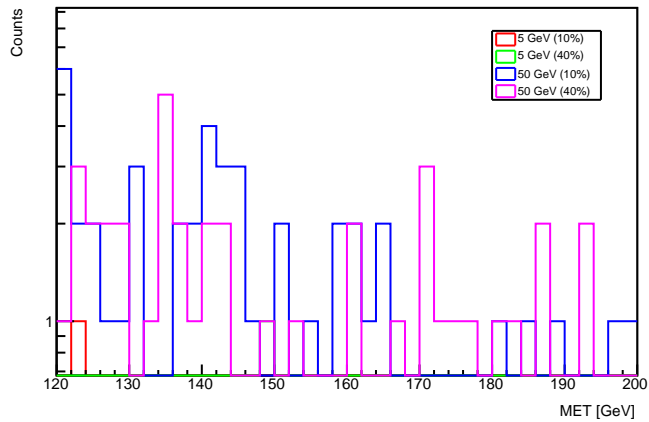
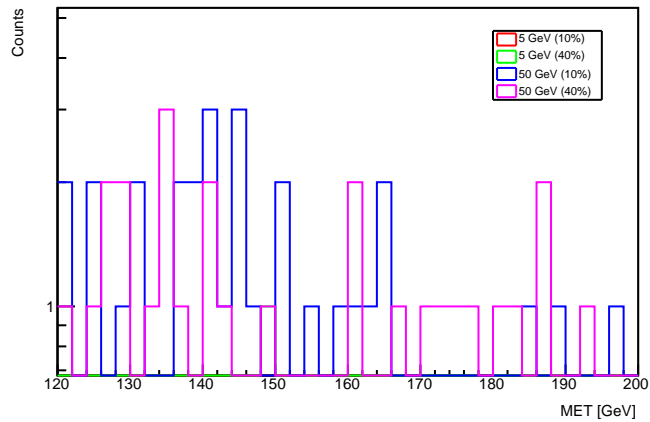
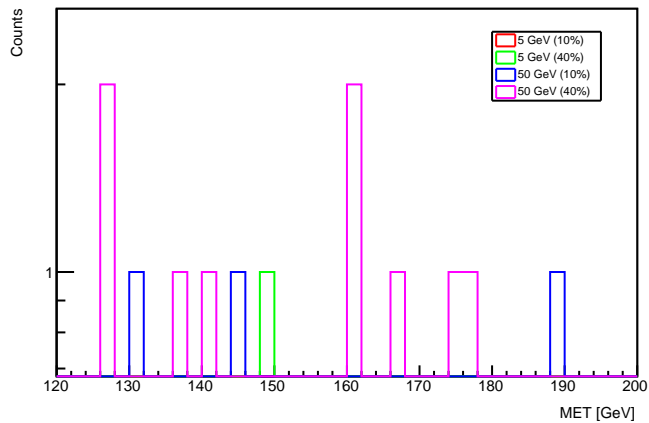
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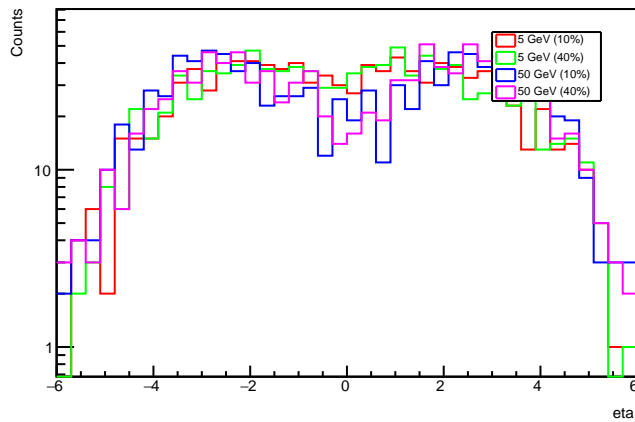
gen leading MET: no cuts

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

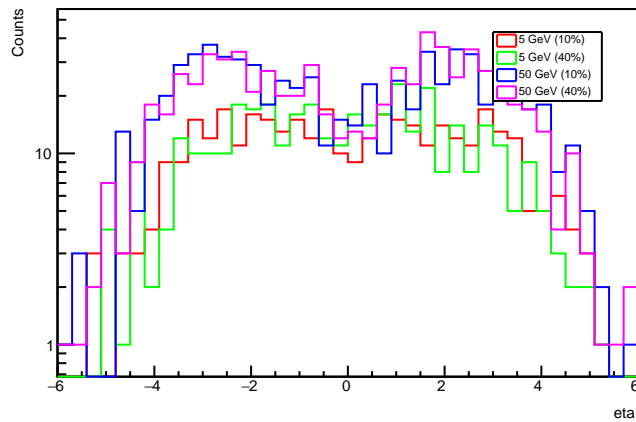
gen leading MET: MET > 120 GeV

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

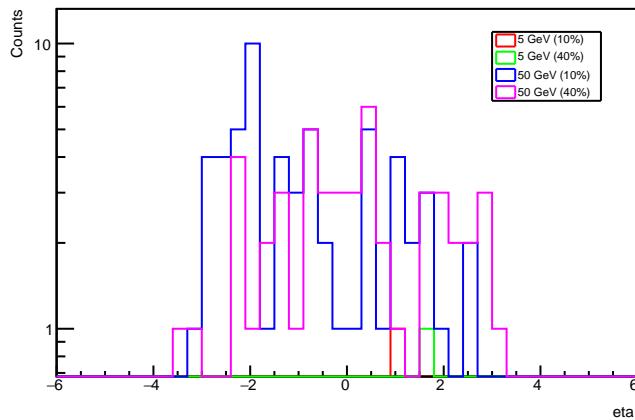
gen leading Met eta: no cuts



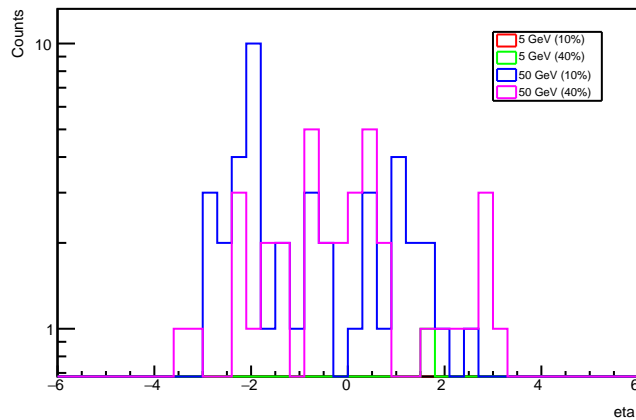
gen leading Met eta: n_jet >=1, j1pt > 30 GeV



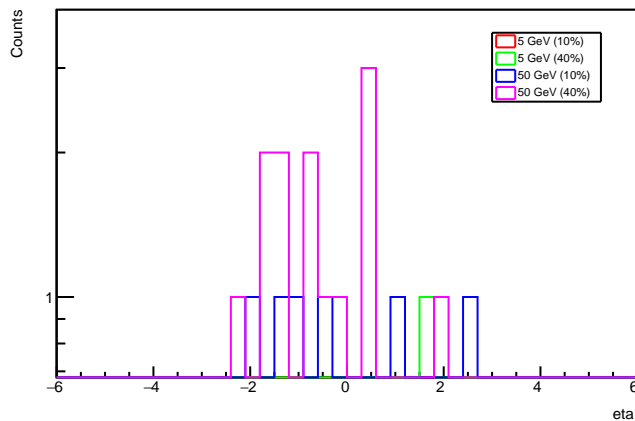
gen leading Met eta: MET > 120 GeV



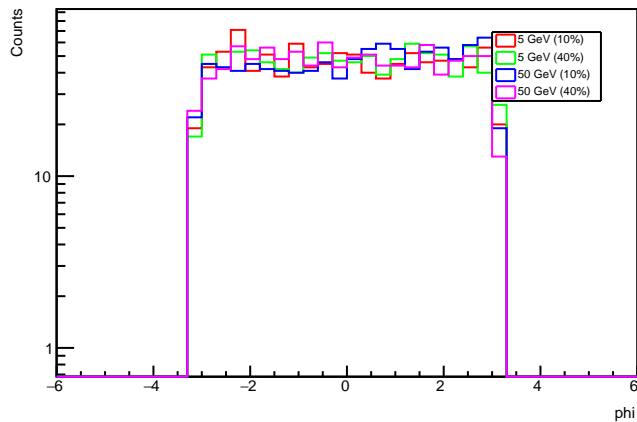
gen leading Met eta: j1pt >120, at most 2 jets w/ pt >30 GeV



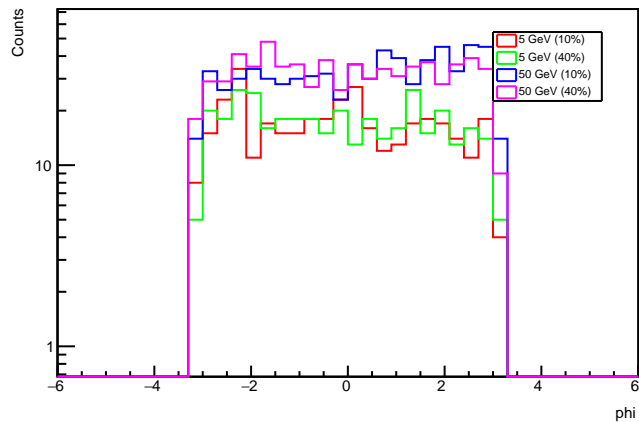
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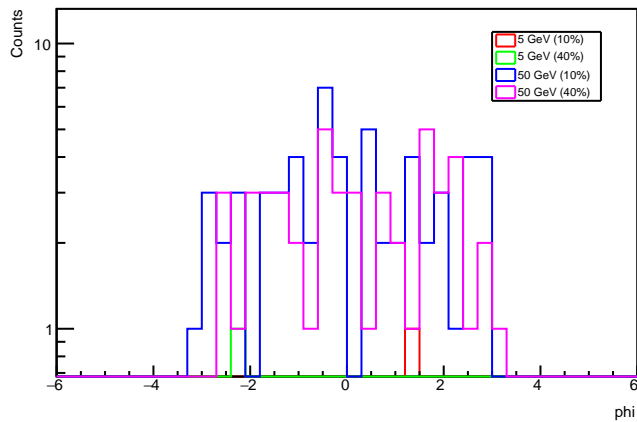
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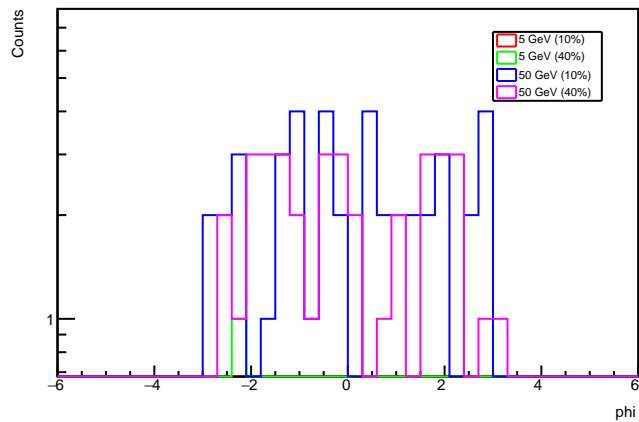
gen leading Met phi: n_jet >=1, j1pt > 30 GeV



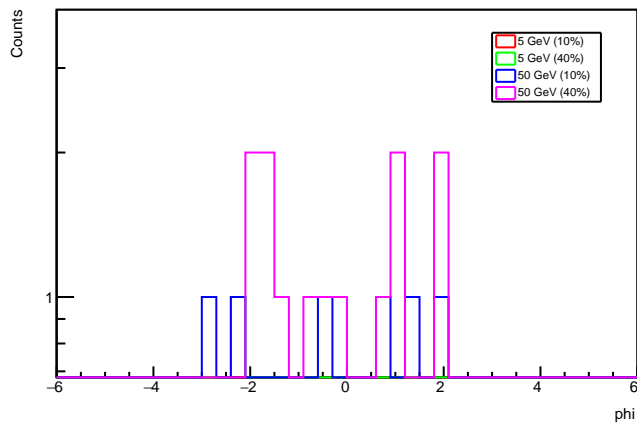
gen leading Met phi: MET > 120 GeV



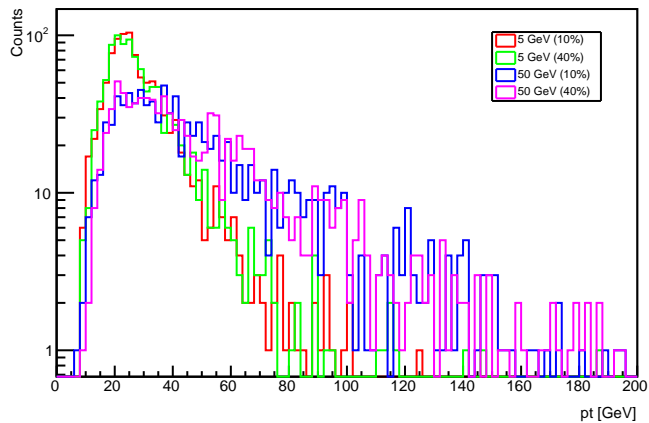
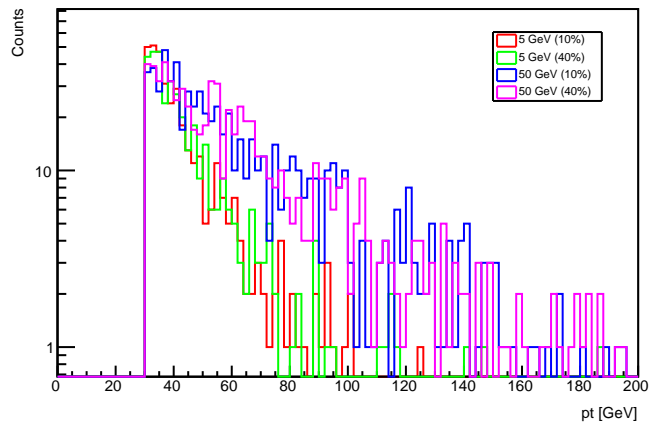
gen leading Met phi: j1pt >120, at most 2 jets w/ pt >30 GeV



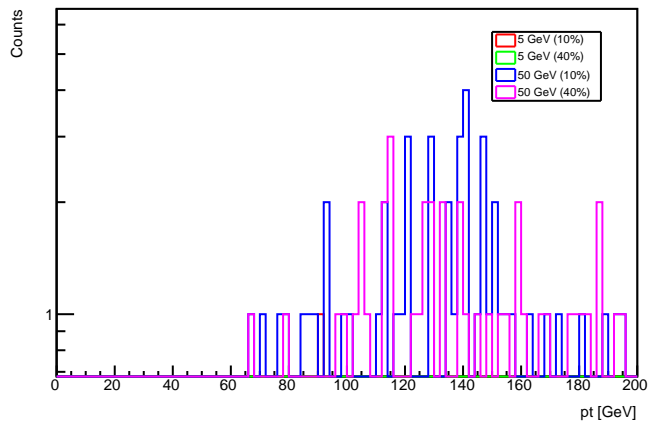
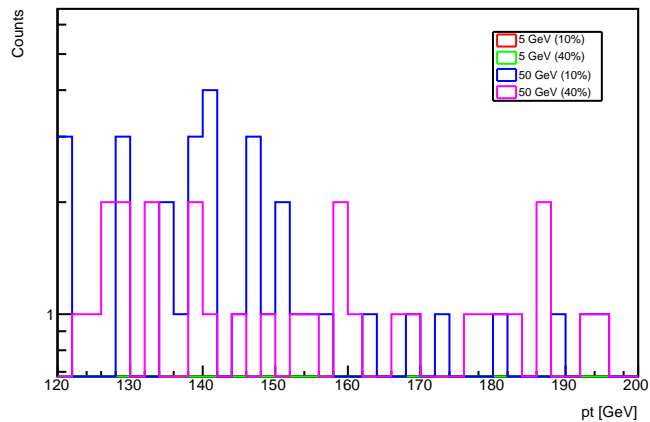
gen leading Met phi: at least 2 mu w/ pt > 2 GeV and eta < 2.5



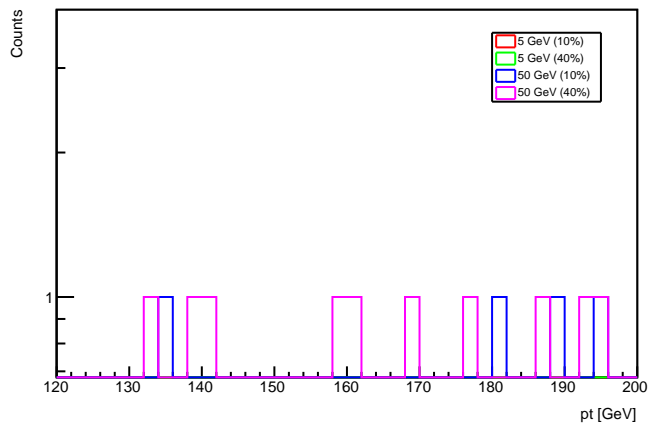
gen leading Jet pt: no cuts

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

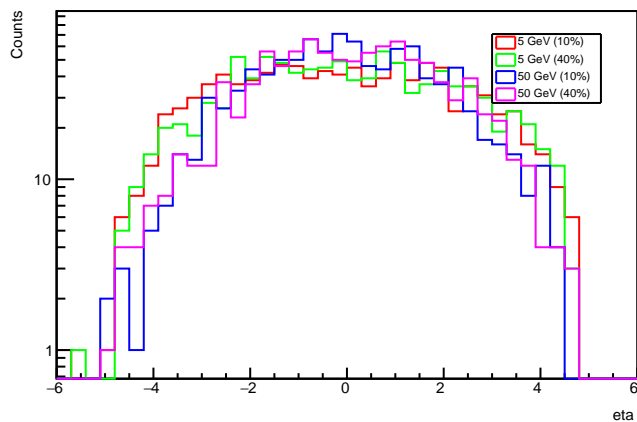
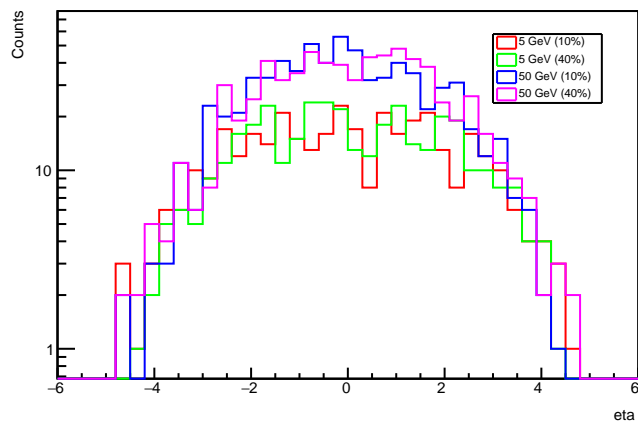
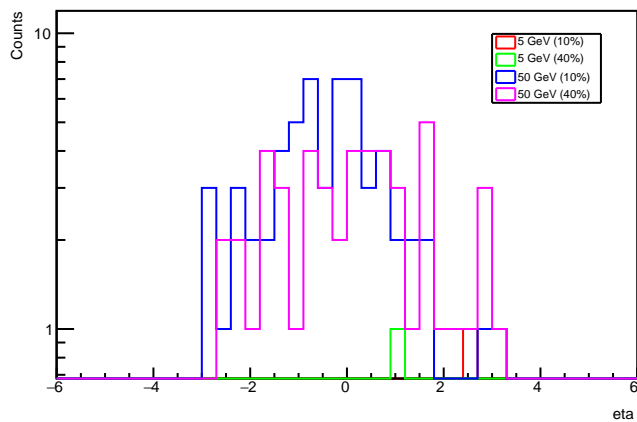
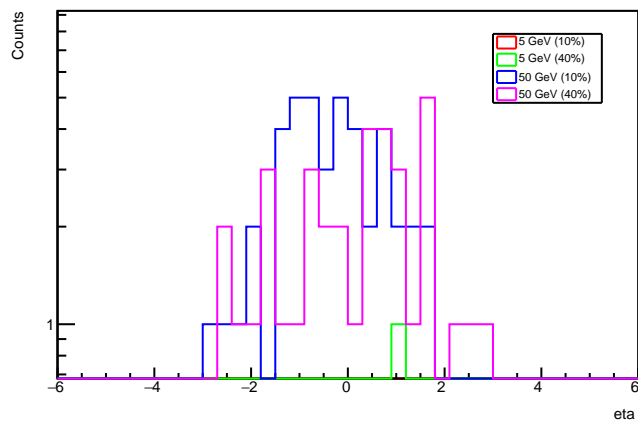
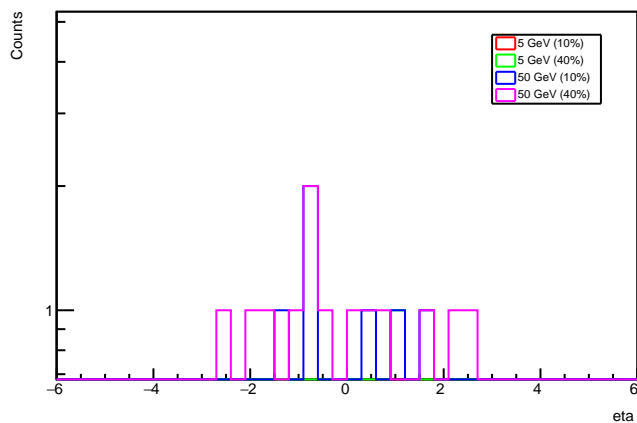
gen leading Jet pt: MET > 120 GeV

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

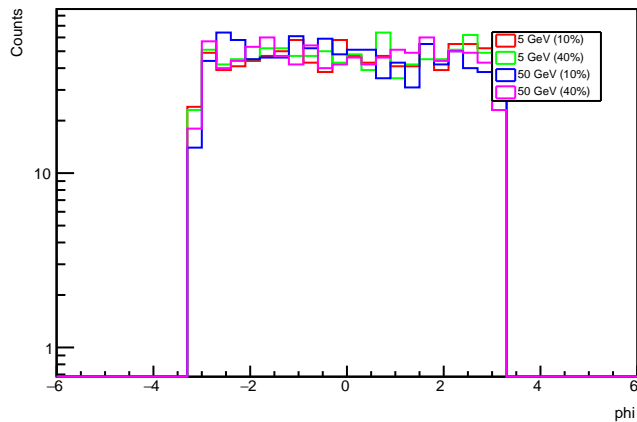
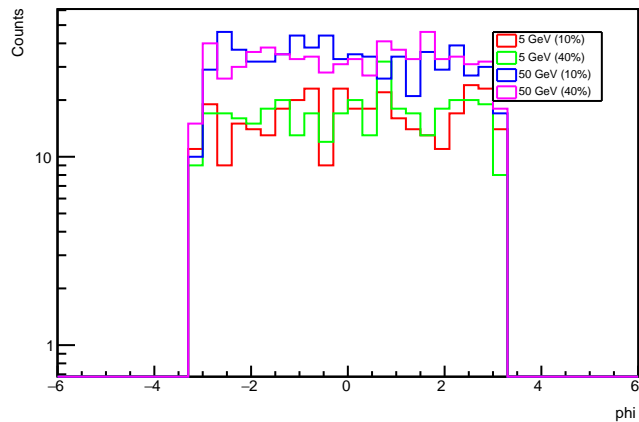
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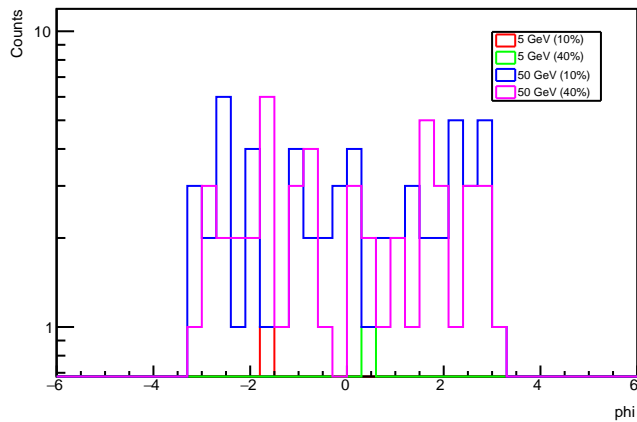
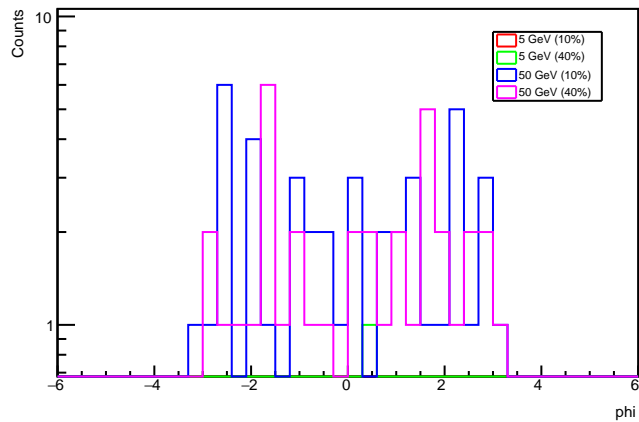
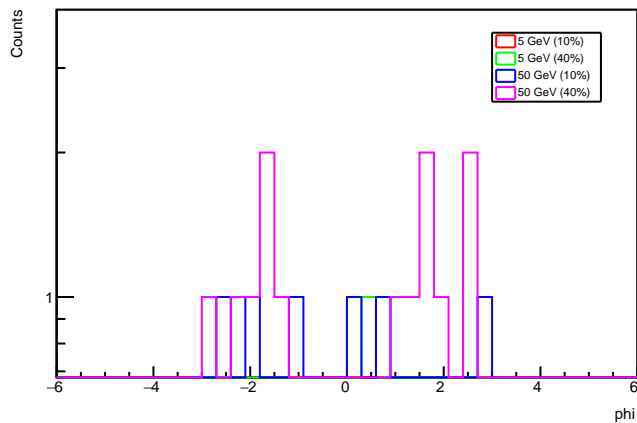
gen leading Jet eta: no cuts

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

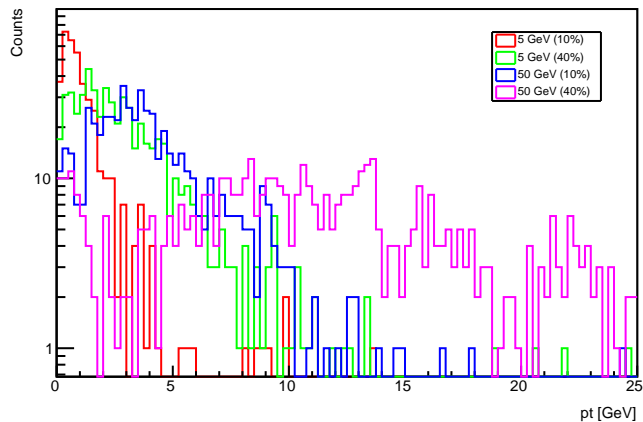
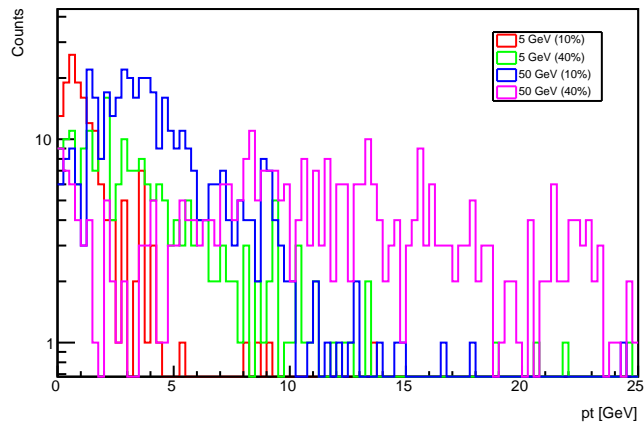
gen leading Jet phi: no cuts

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

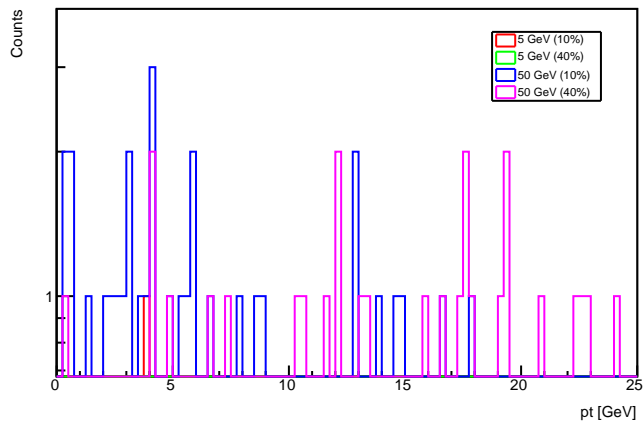
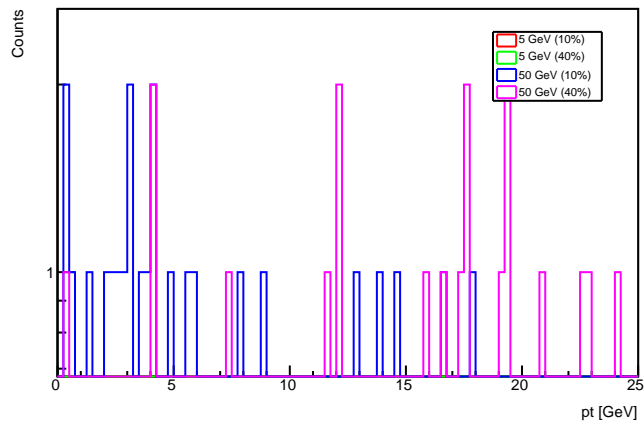
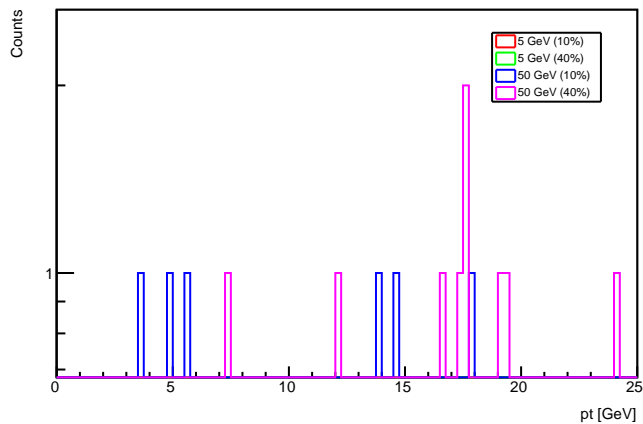
gen leading Jet phi: MET > 120 GeV

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

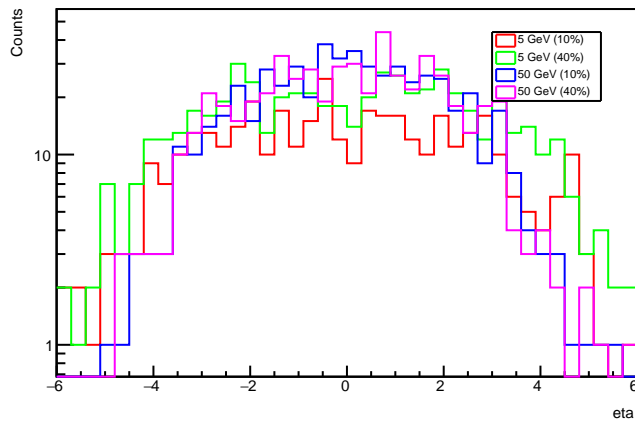
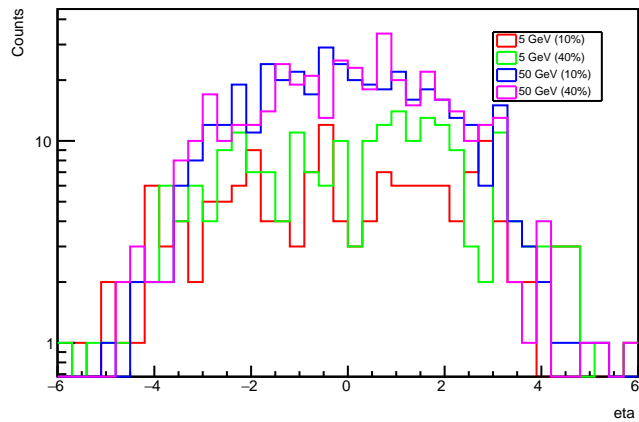
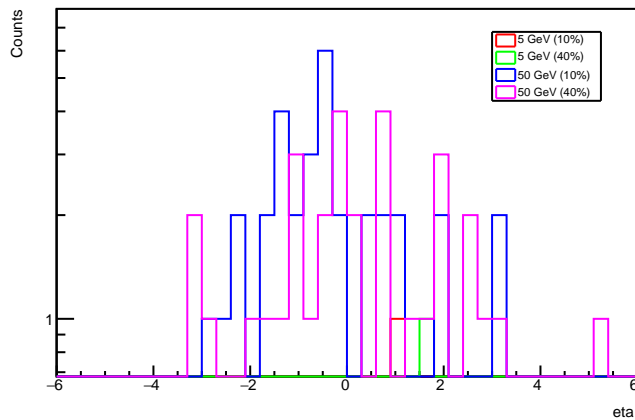
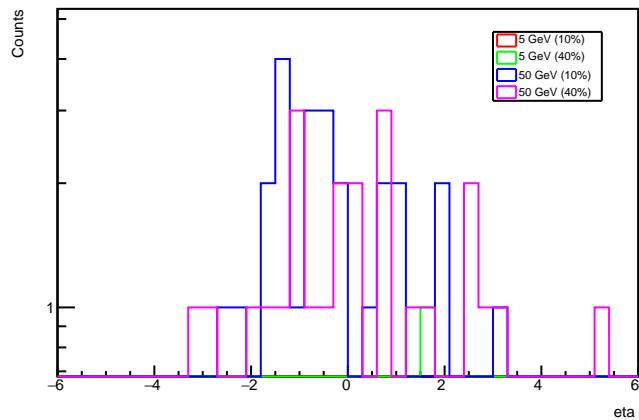
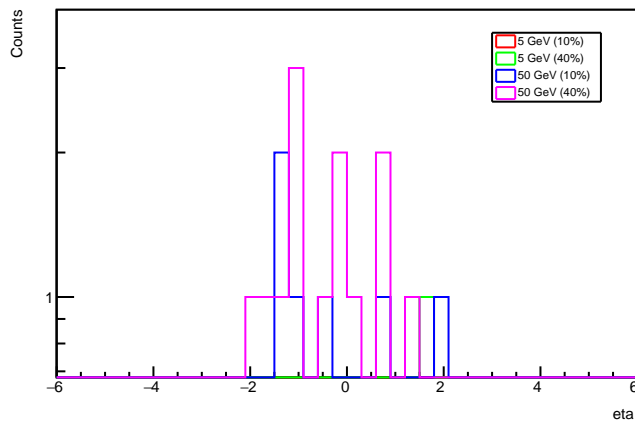
gen leading Mu pt: no cuts

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

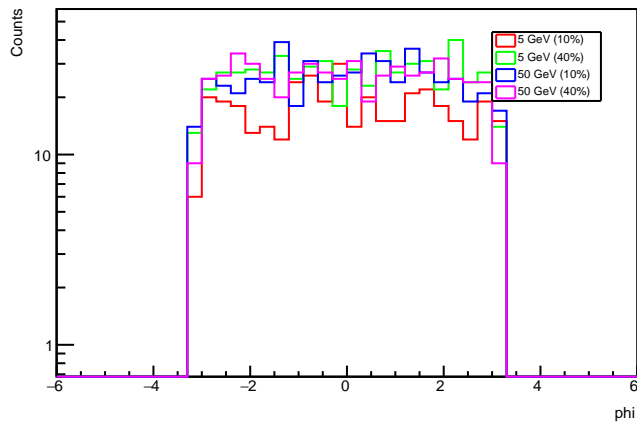
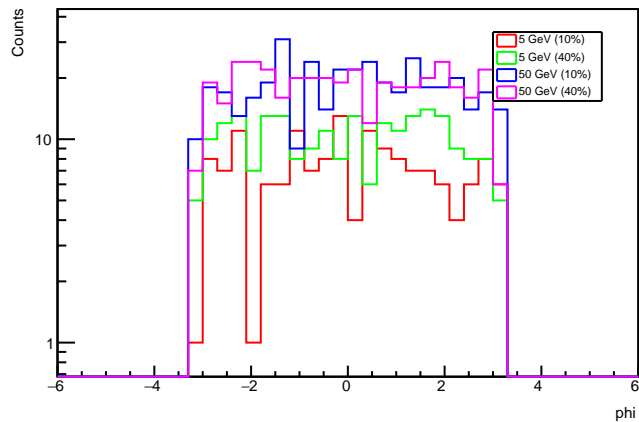
gen leading Mu pt: MET > 120 GeV

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 $\eta < 2.5$ 

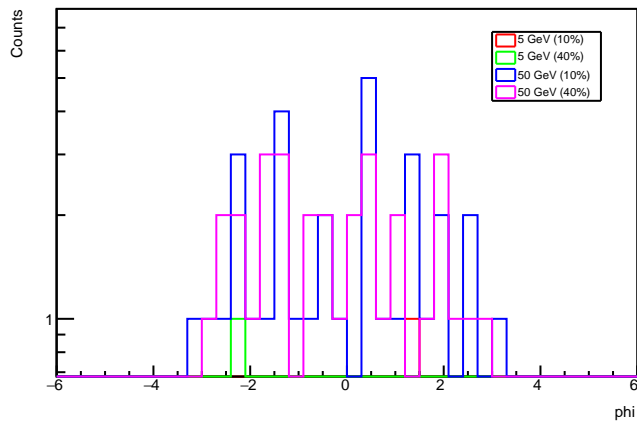
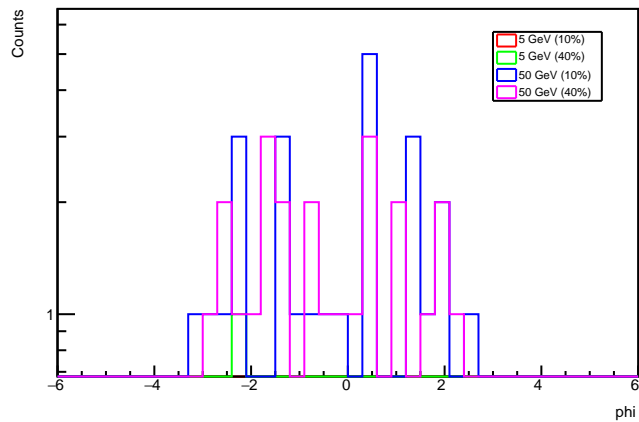
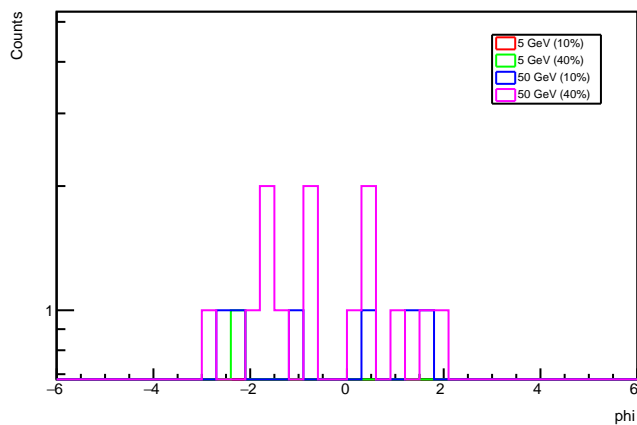
gen leading Mu eta: no cuts

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

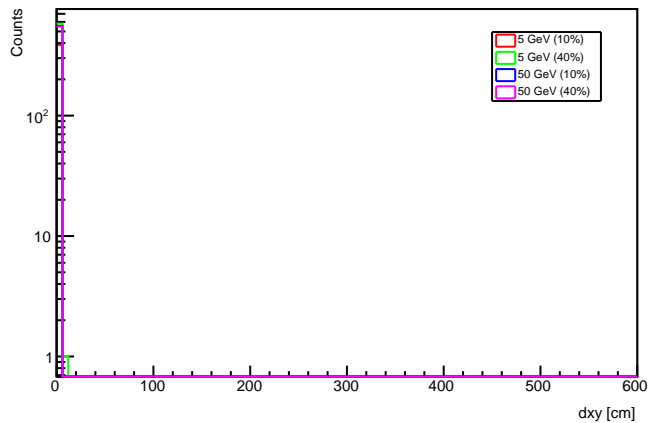
gen leading Mu phi: no cuts

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

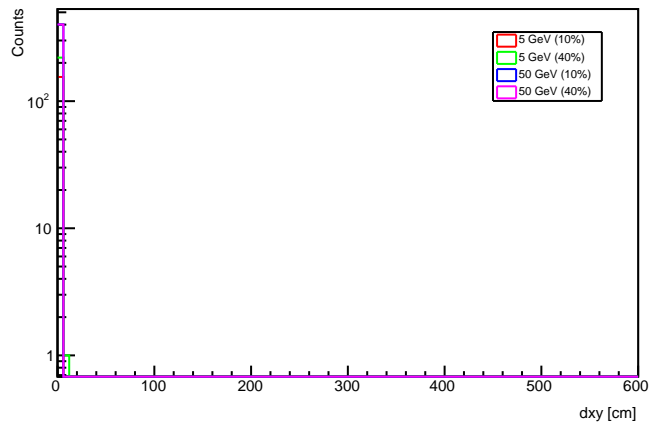
gen leading Mu phi: MET > 120 GeV

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

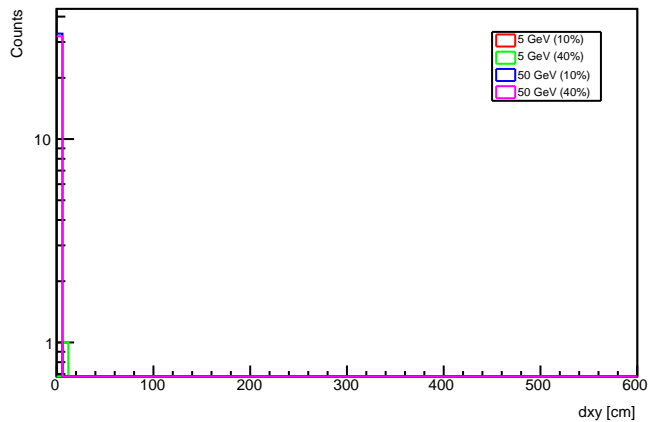
gen leading Mu vxy: no cuts



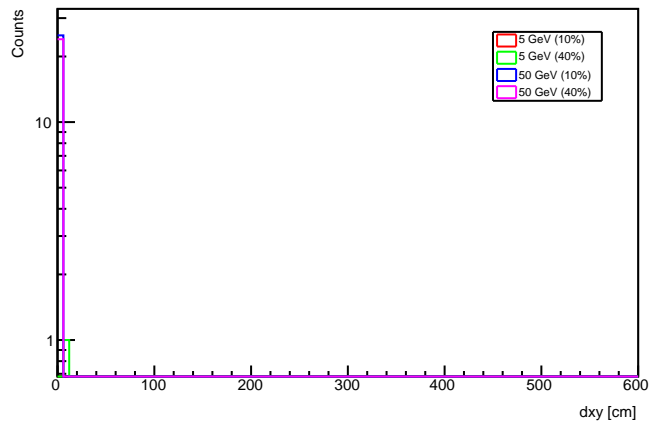
gen leading Mu vxy: n_jet >=1, j1pt > 30 GeV



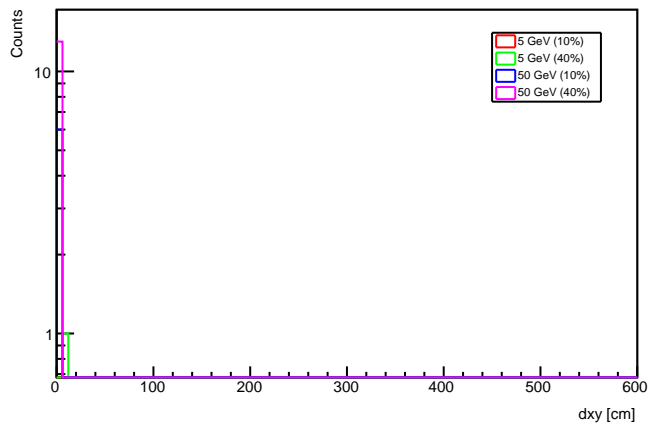
gen leading Mu vxy: MET > 120 GeV



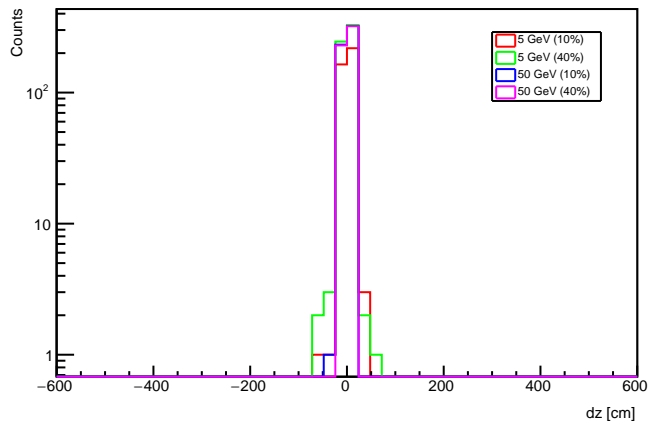
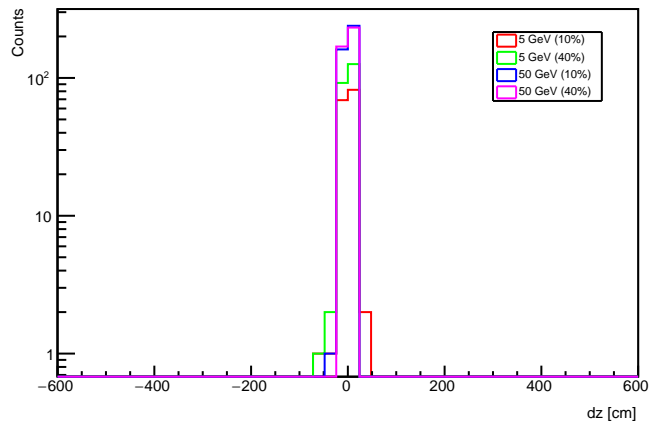
gen leading Mu vxy: j1pt >120, at most 2 jets w/ pt >30 GeV



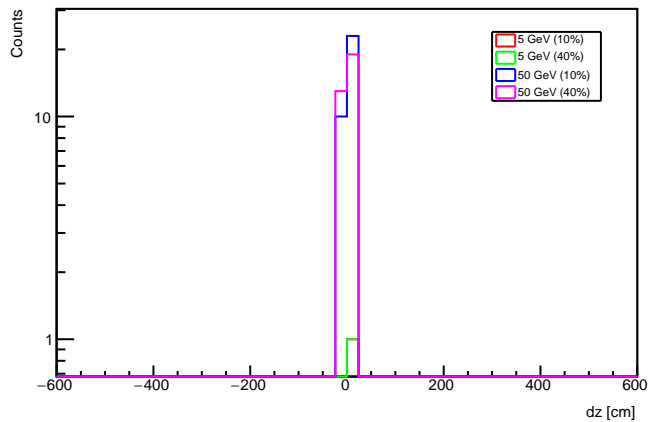
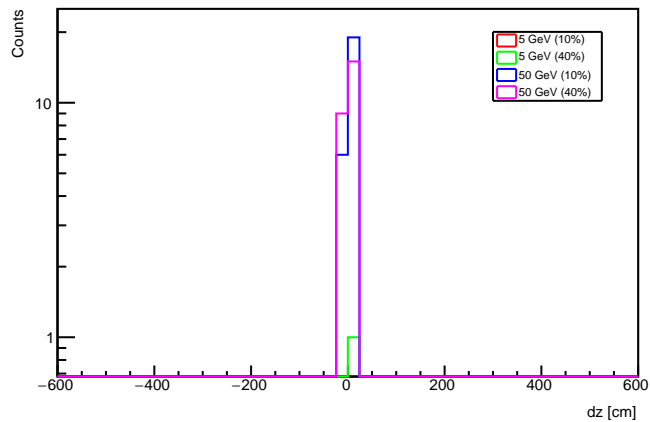
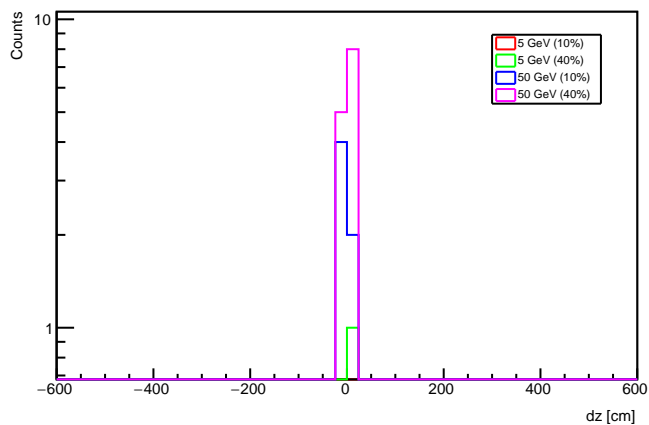
gen leading Mu vxy: at least 2 mu w/ pt > 2 GeV and eta<2.5



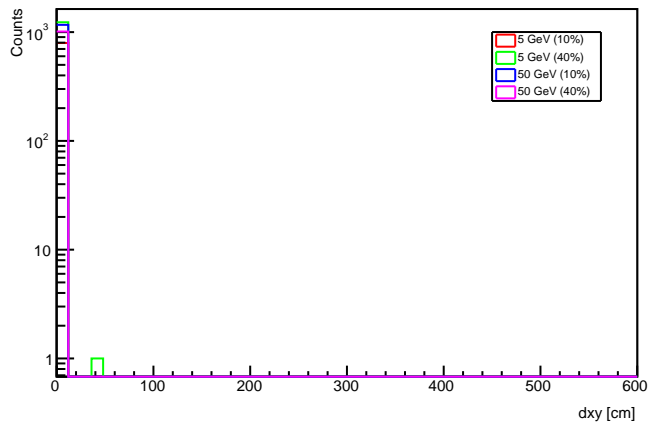
gen leading Mu vz: no cuts

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

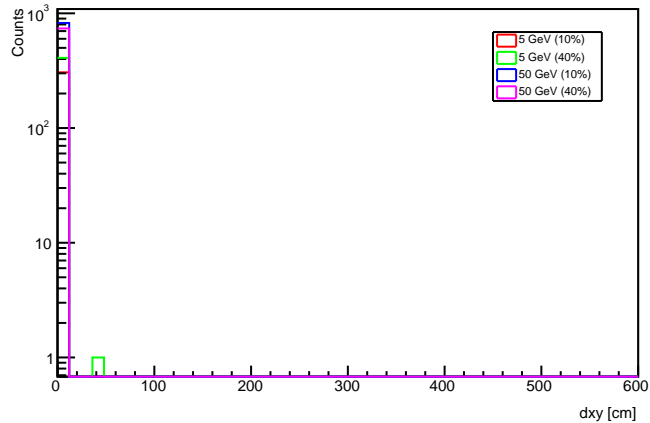
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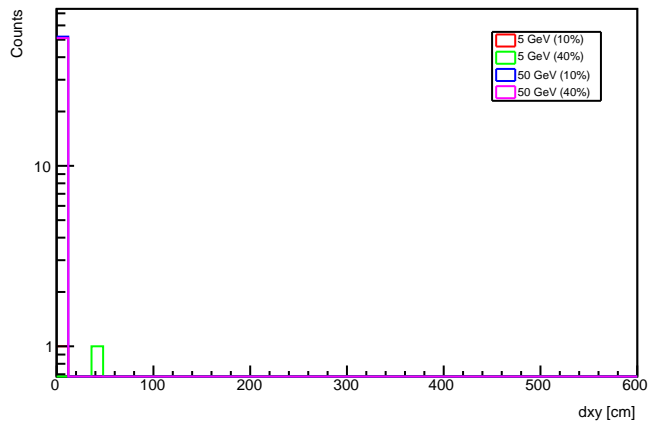
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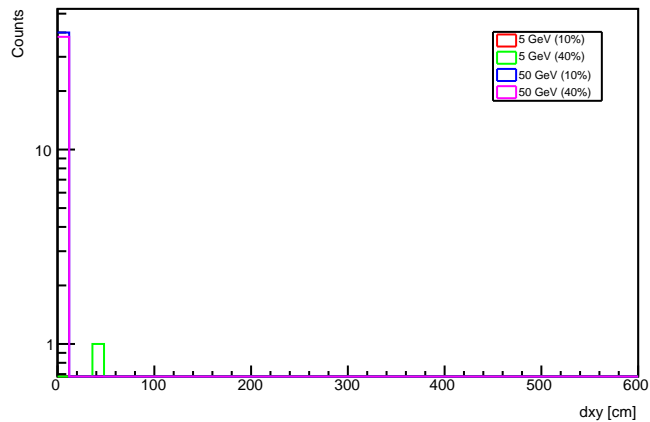
gen all Mu vxy: n_jet >=1, j1pt > 30 GeV



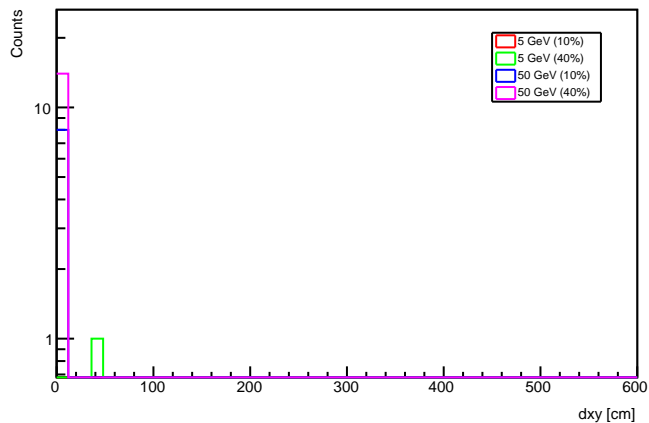
gen all Mu vxy: MET > 120 GeV



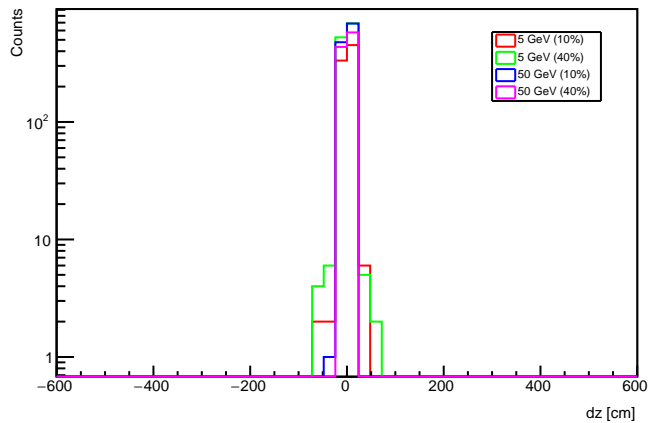
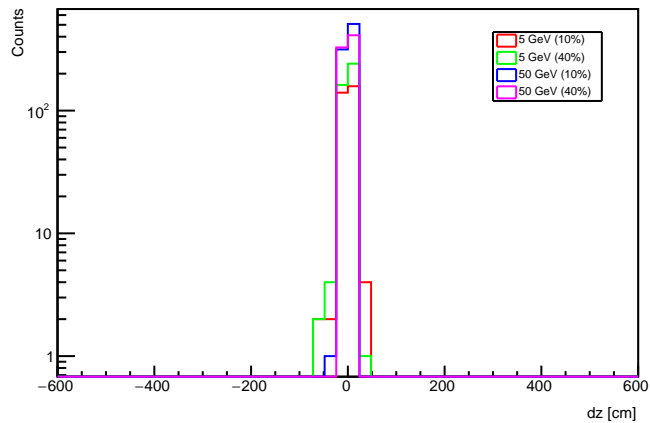
gen all Mu vxy: j1pt >120, at most 2 jets w/ pt >30 GeV



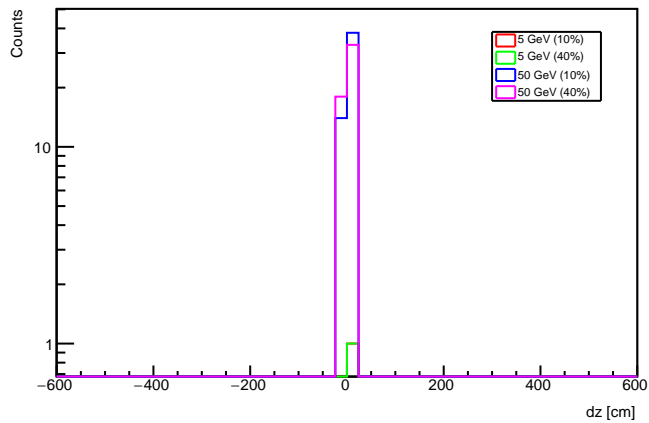
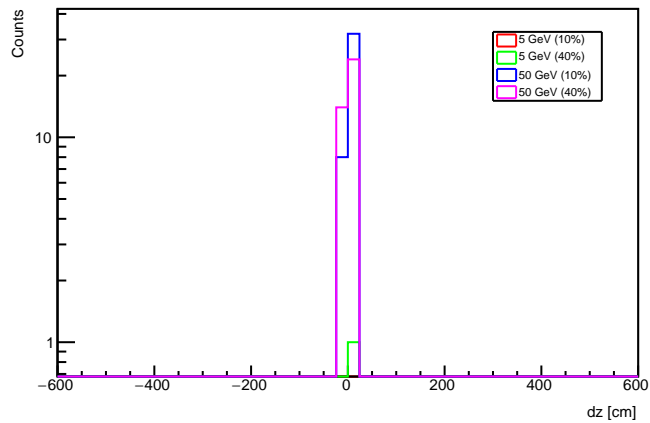
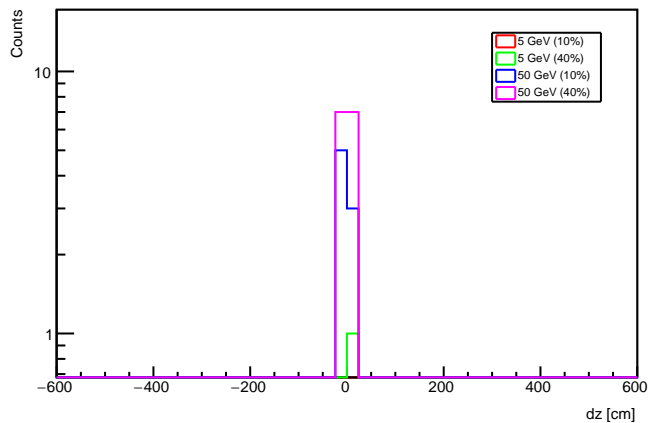
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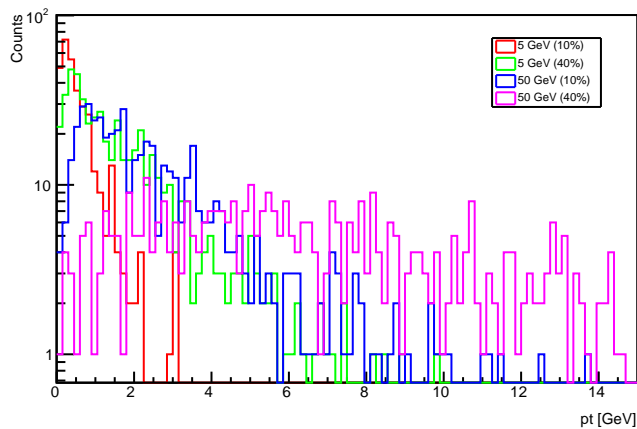
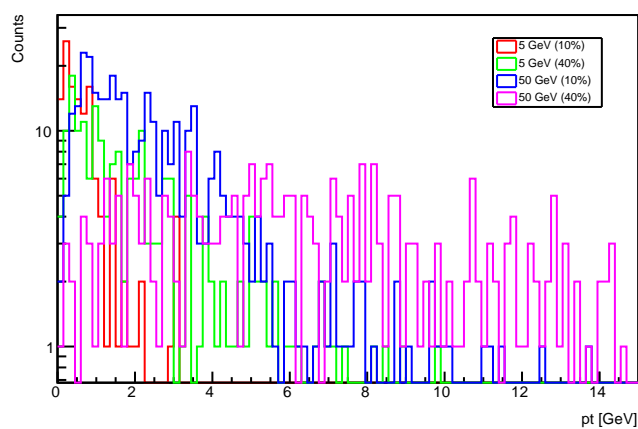
gen all Mu vz: no cuts

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

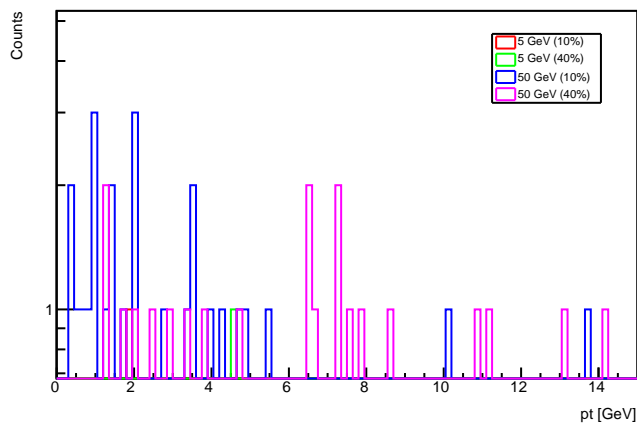
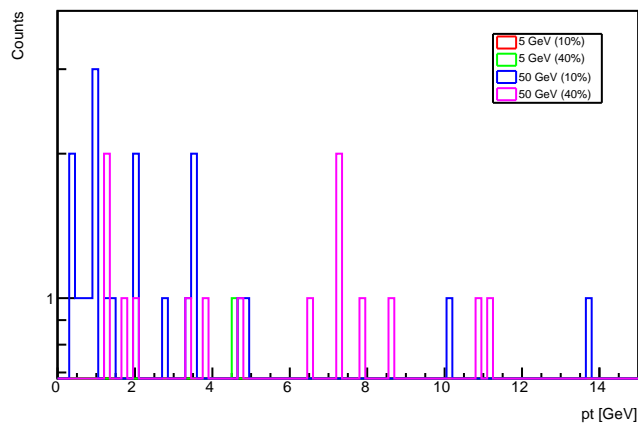
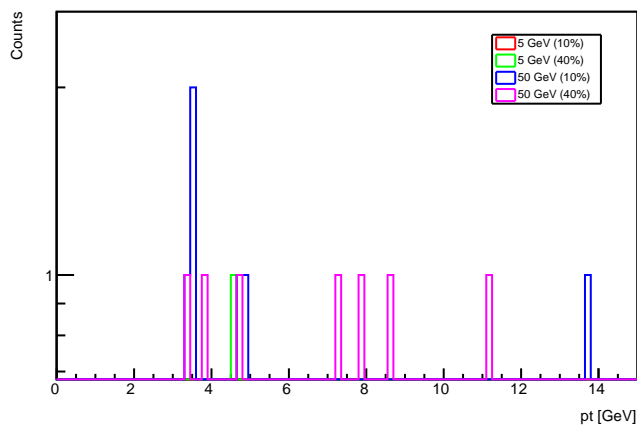
gen all Mu vz: MET > 120 GeV

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

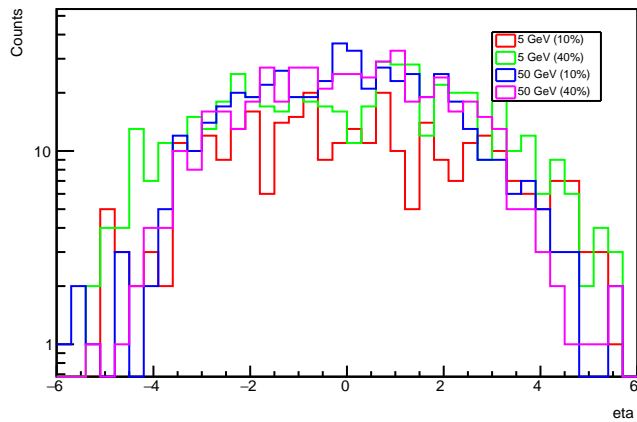
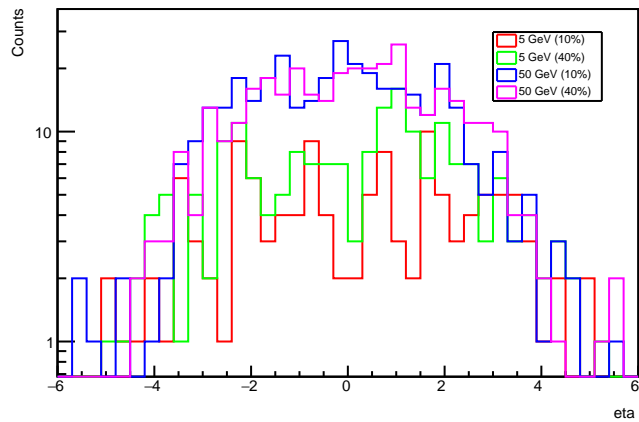
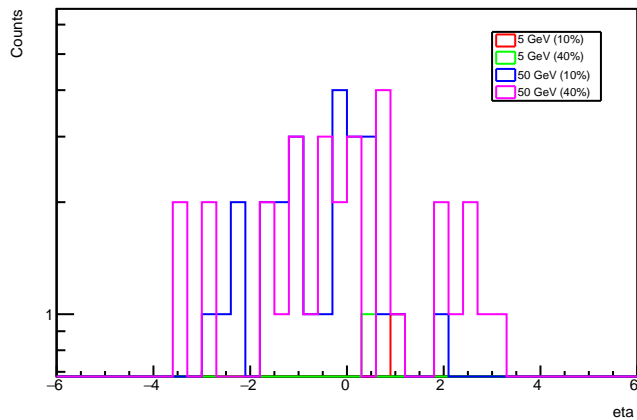
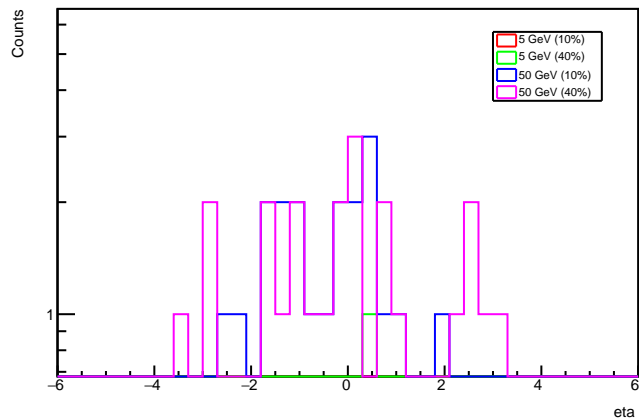
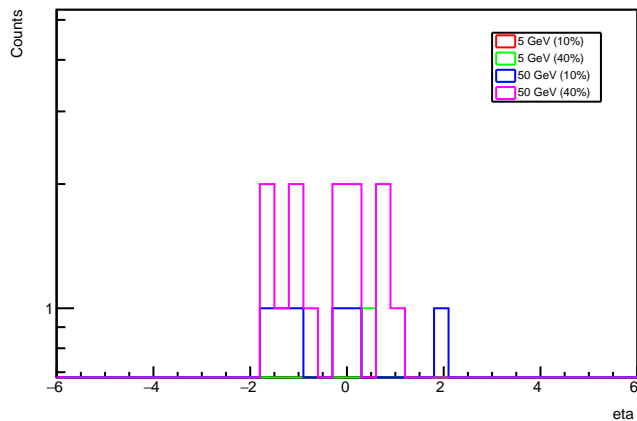
gen subleading Mu pt: no cuts

gen subleading Mu pt: $n_{\text{jet}} \geq 1, j_1 \text{pt} > 30 \text{ GeV}$ 

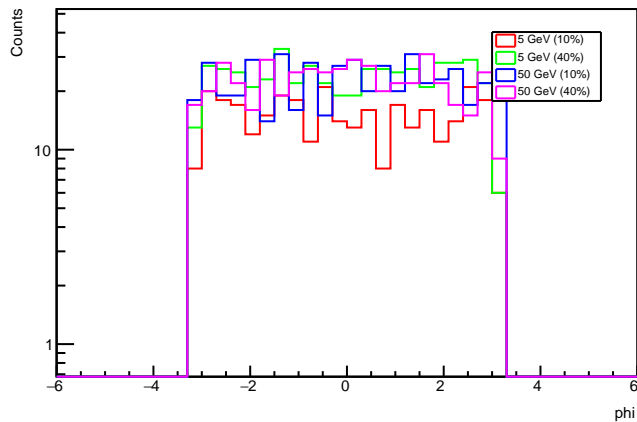
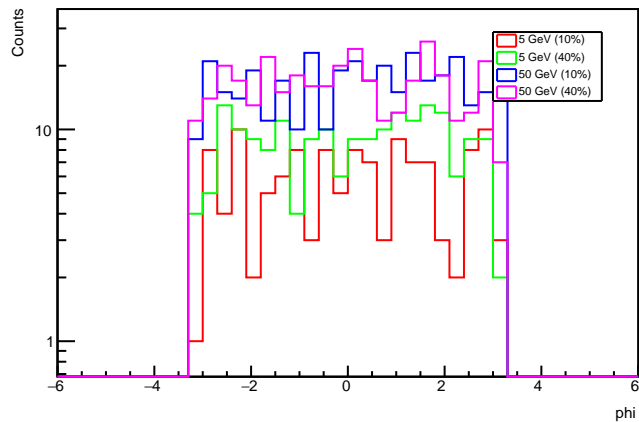
gen subleading Mu pt: MET > 120 GeV

gen subleading Mu pt: $j_1 \text{pt} > 120, \text{ at most } 2 \text{ jets w/ } \text{pt} > 30 \text{ GeV}$ gen subleading Mu pt: at least 2 mu w/ pt > 2 GeV and $\eta < 2.5$ 

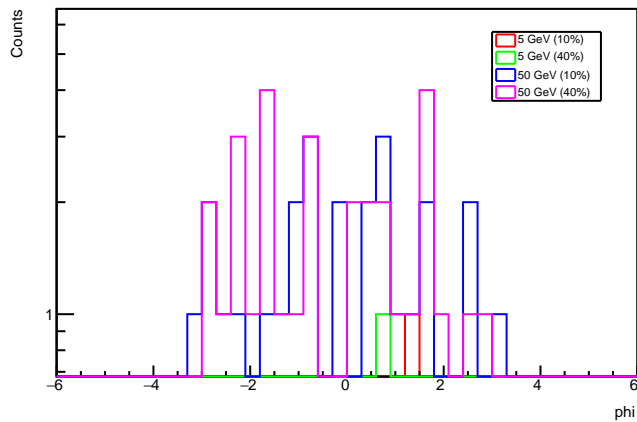
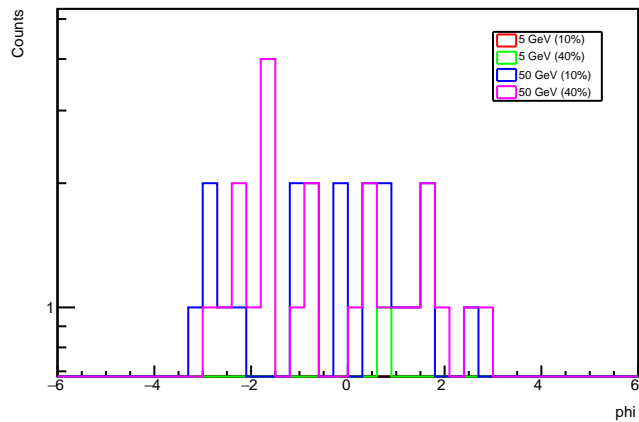
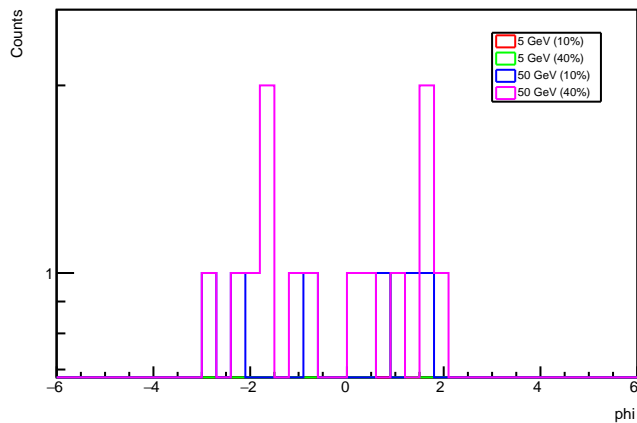
gen subleading Mu eta: no cuts

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

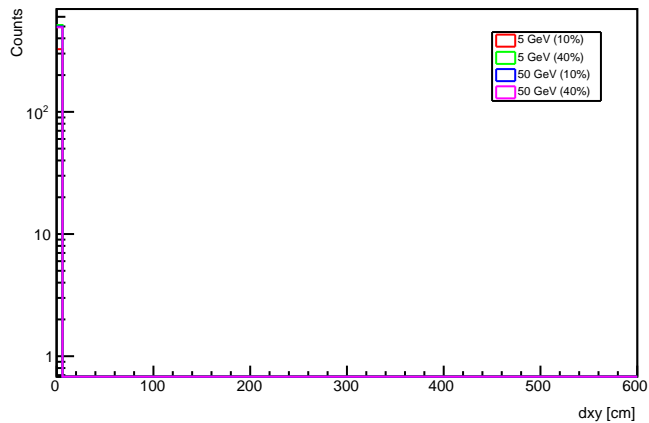
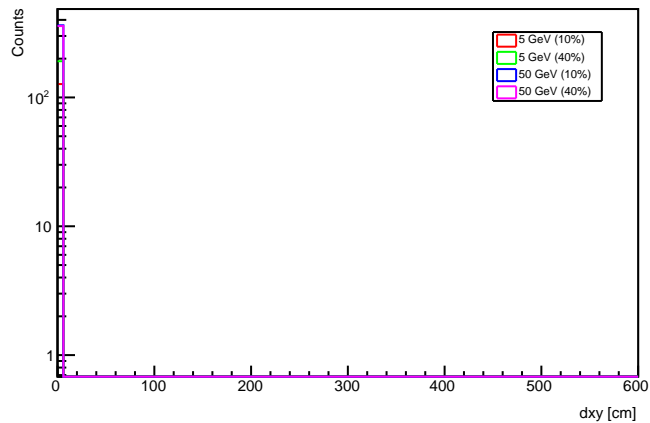
gen subleading Mu phi: no cuts

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

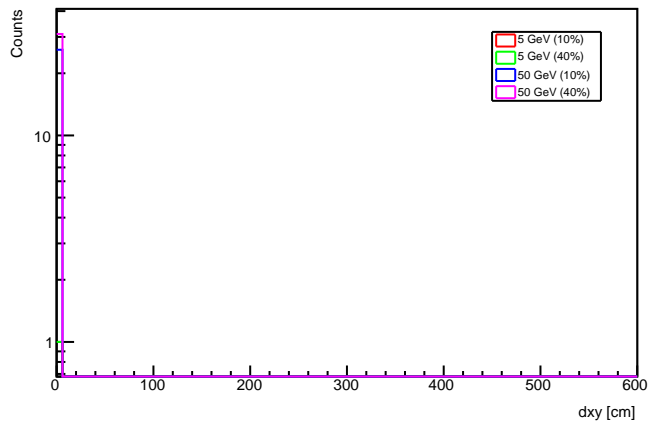
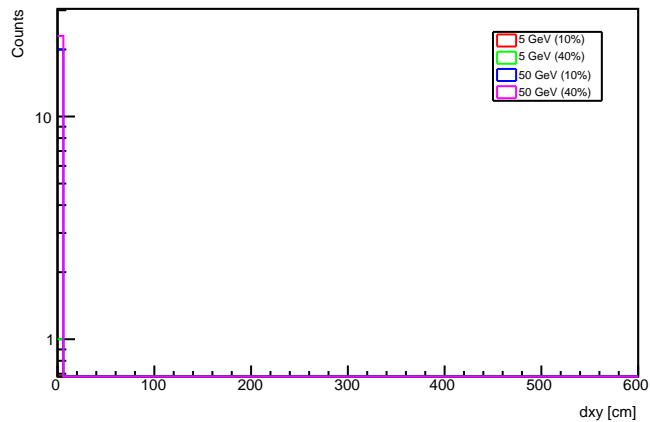
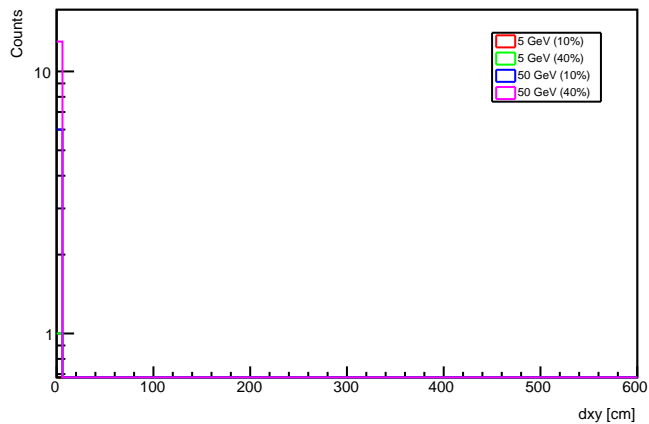
gen subleading Mu phi: MET > 120 GeV

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

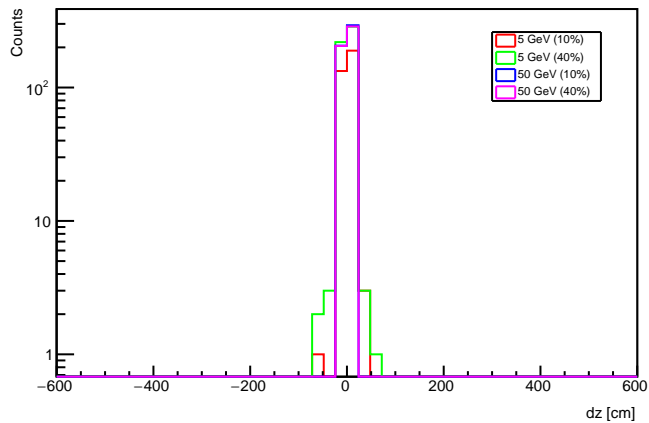
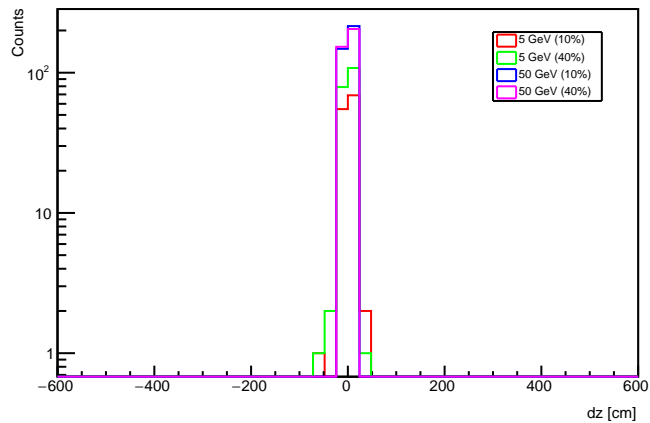
gen subleading Mu vxy: no cuts

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

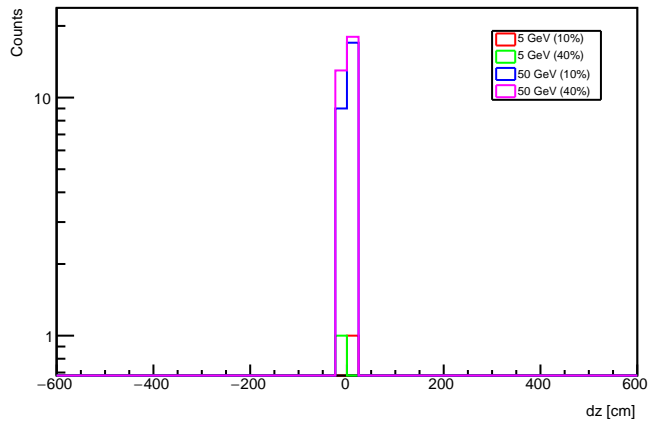
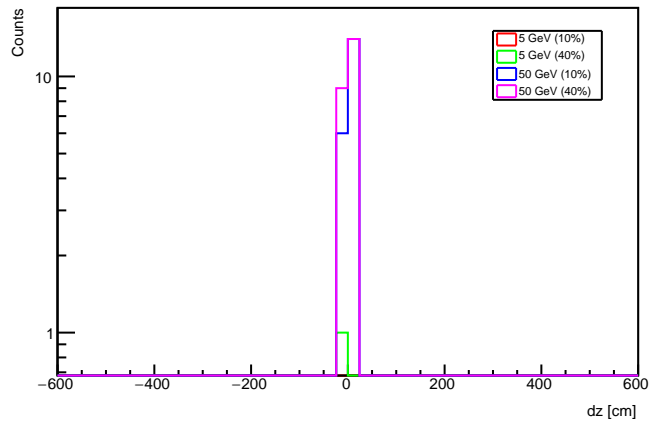
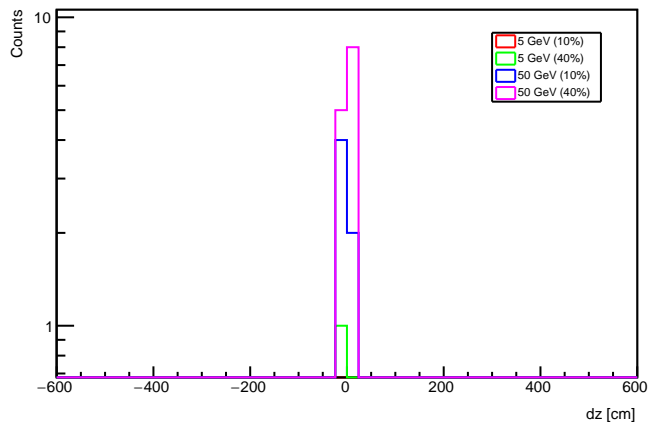
gen subleading Mu vxy: MET > 120 GeV

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

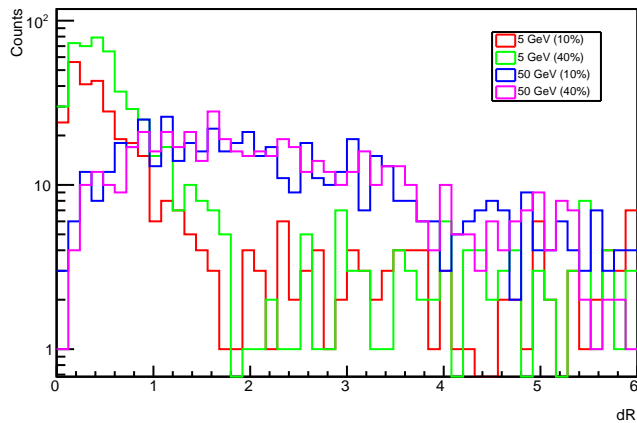
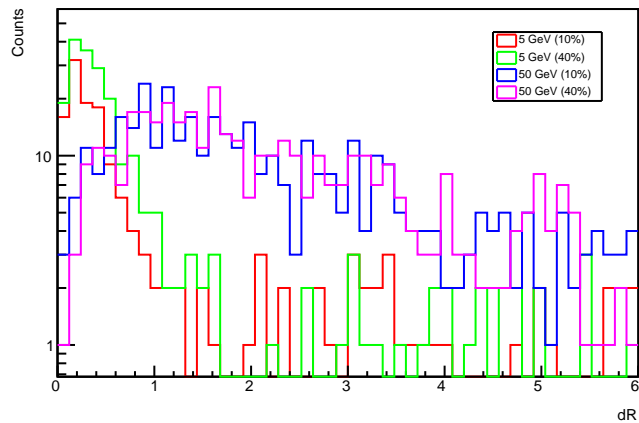
gen subleading Mu vz: no cuts

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

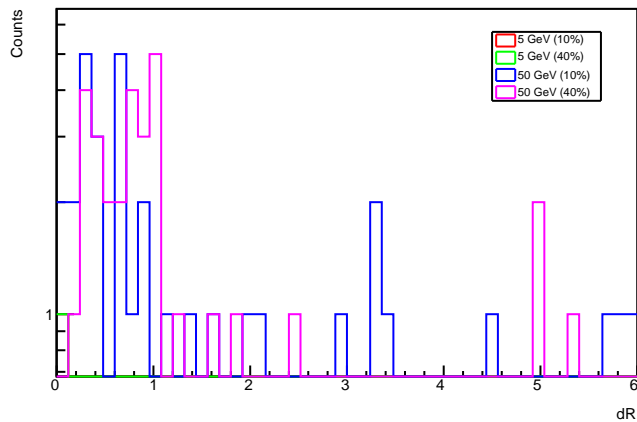
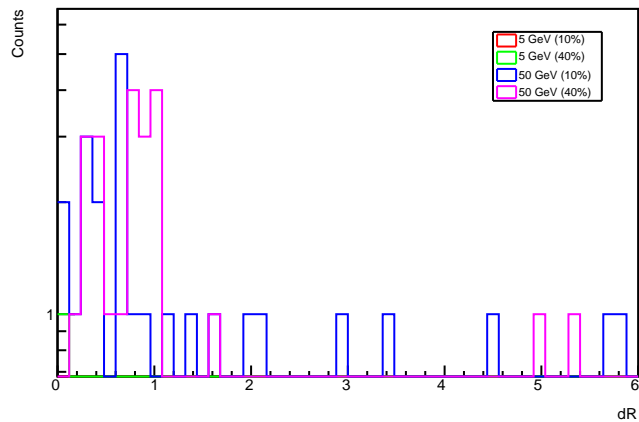
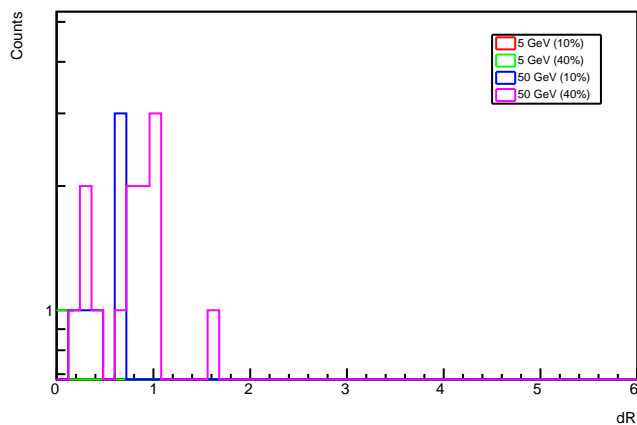
gen subleading Mu vz: MET > 120 GeV

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

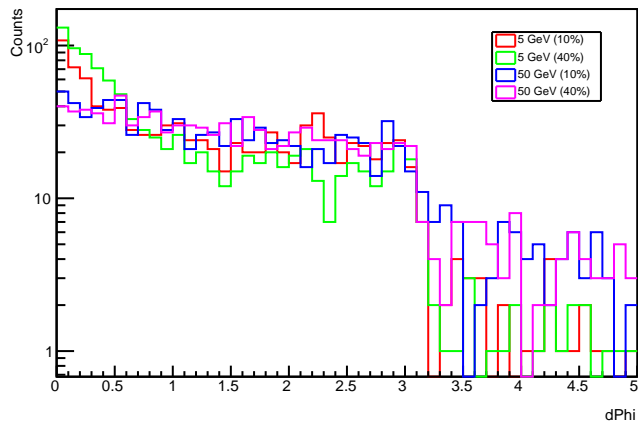
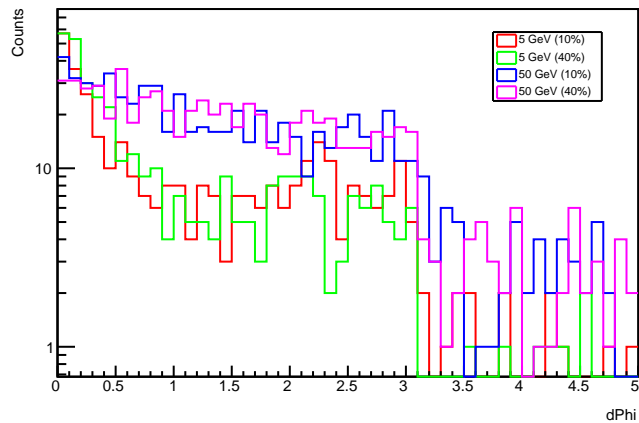
dR: gen leading mu and subleading mu: no cuts

dR: gen leading mu and subleading mu: $n_{\text{jet}} \geq 1$, $j_{1\text{pt}} > 30$ GeV

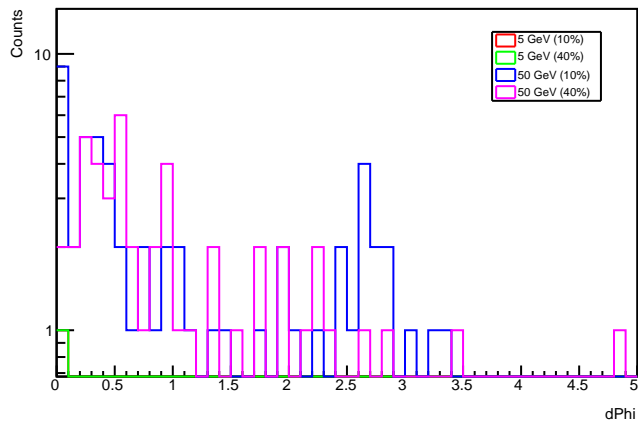
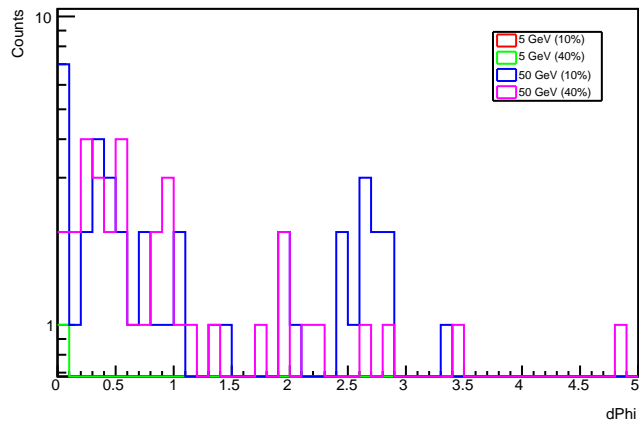
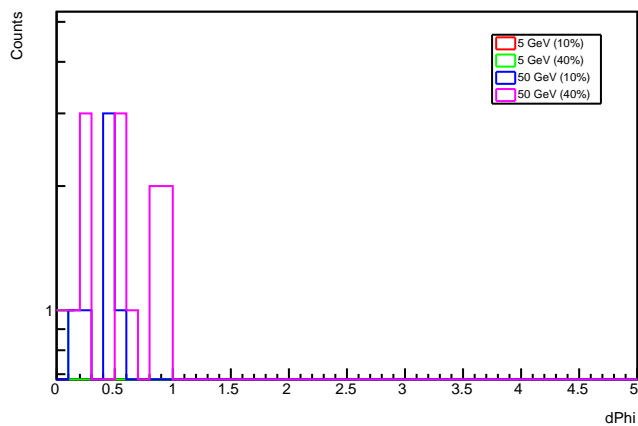
dR: gen leading mu and subleading mu: MET > 120 GeV

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

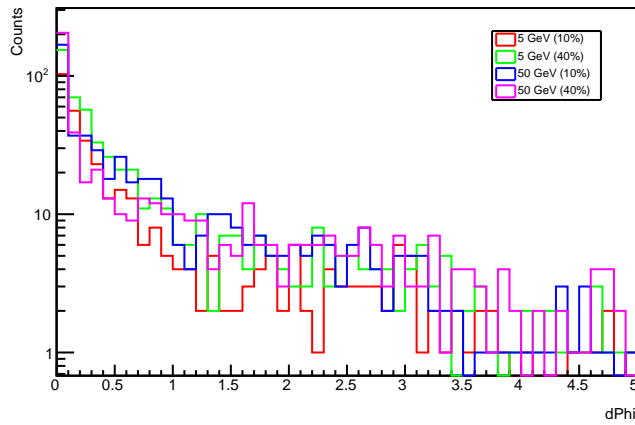
dPhi: gen MET and leading mu: no cuts

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

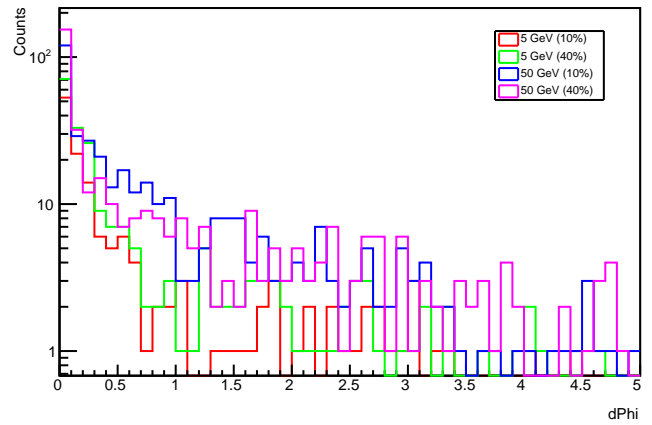
dPhi: gen MET and leading mu: MET > 120 GeV

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

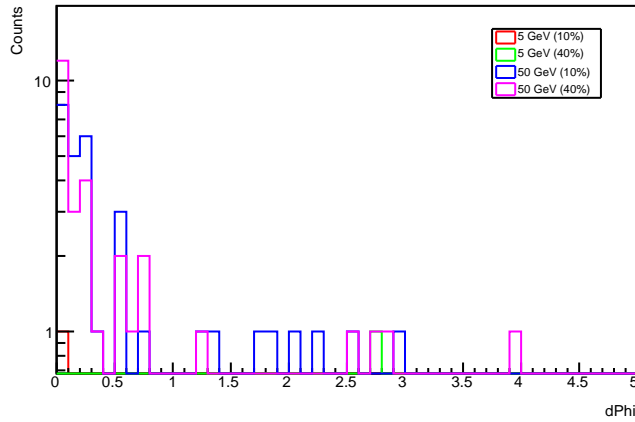
dPhi: gen leading mu and subleading mu: no cuts



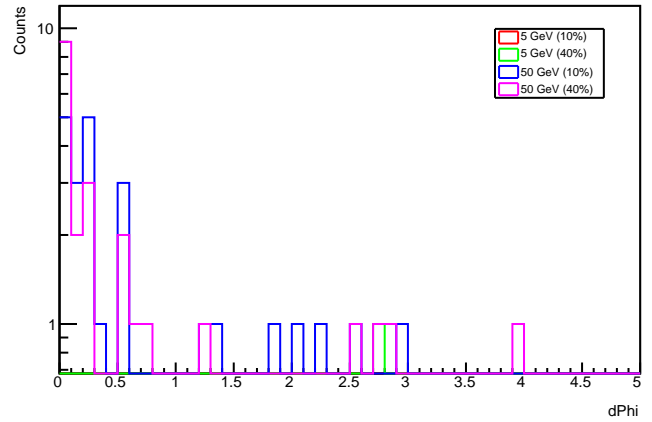
dPhi: gen leading mu and subleading mu: $n_{\text{jet}} \geq 1$, $j_{1\text{pt}} > 30$ GeV



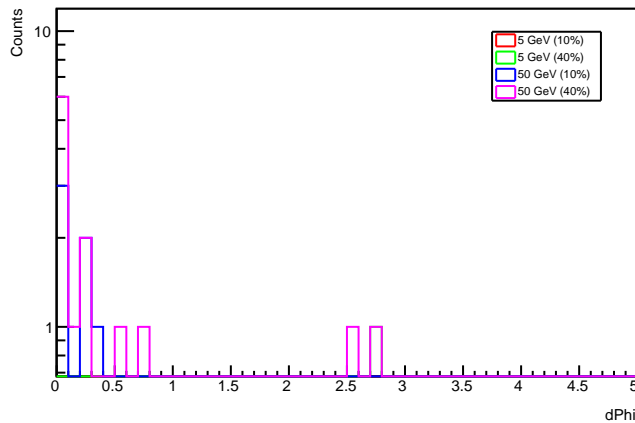
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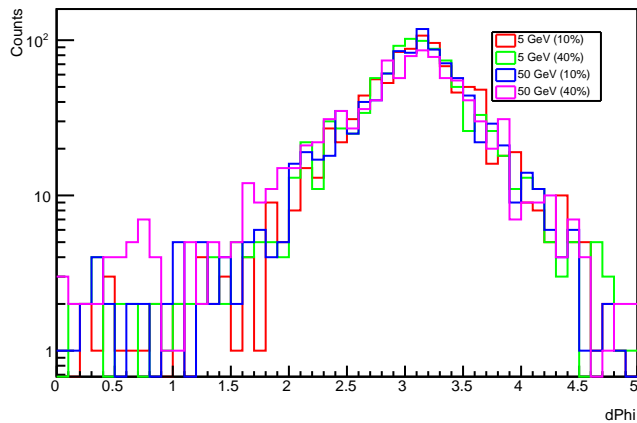
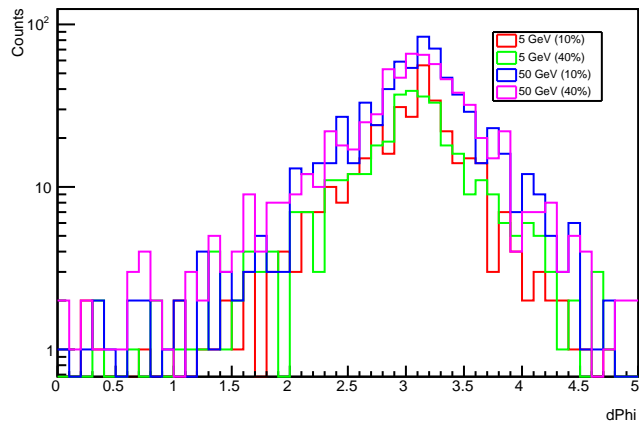
dPhi: gen leading mu and subleading mu: $j_{1\text{pt}} > 120$, at most 2 jets w/ $p_t > 30$ GeV



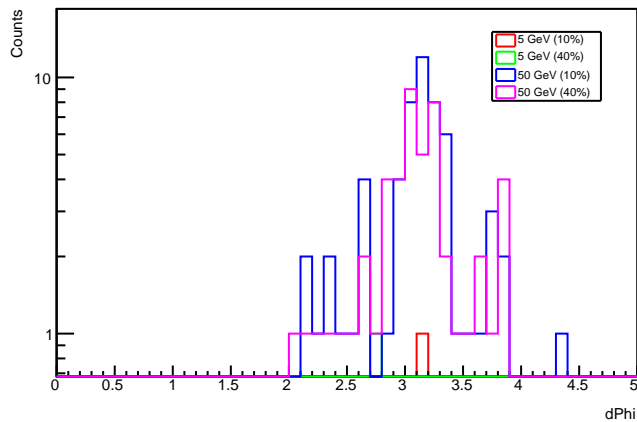
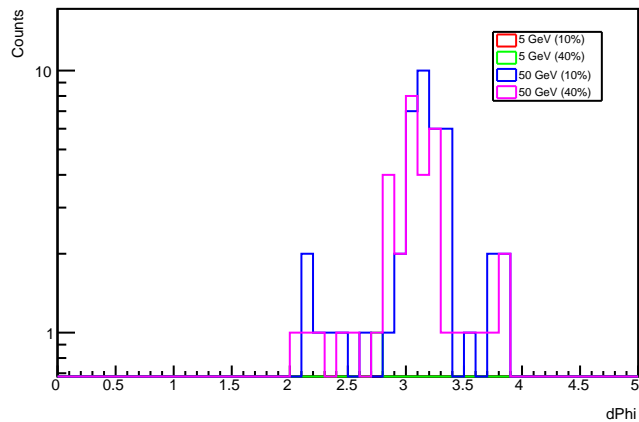
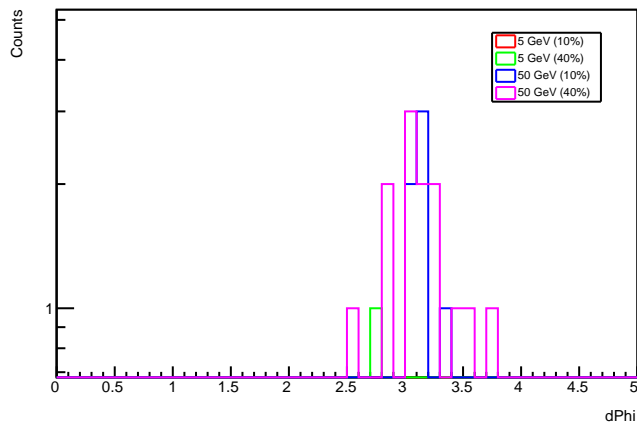
dPhi: gen leading mu and subleading mu: at least 2 mu w/ $p_t > 2$ GeV and $\eta < 2.5$



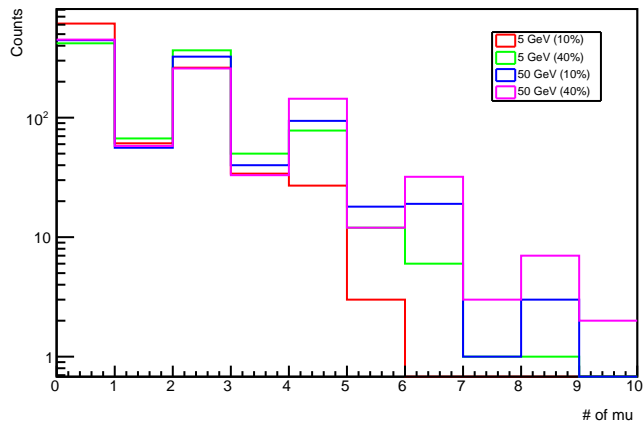
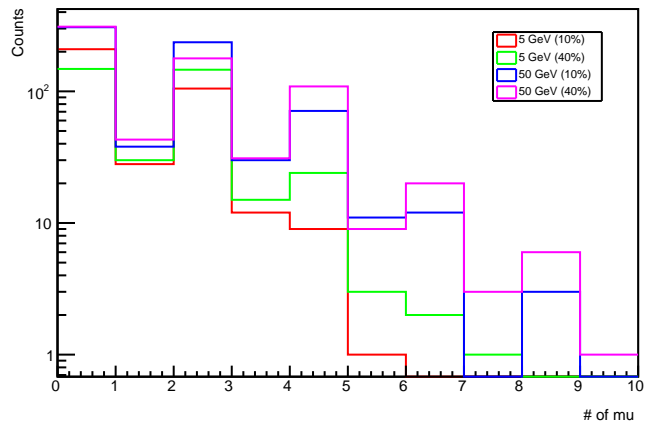
dPhi: gen MET and leading jet: no cuts

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

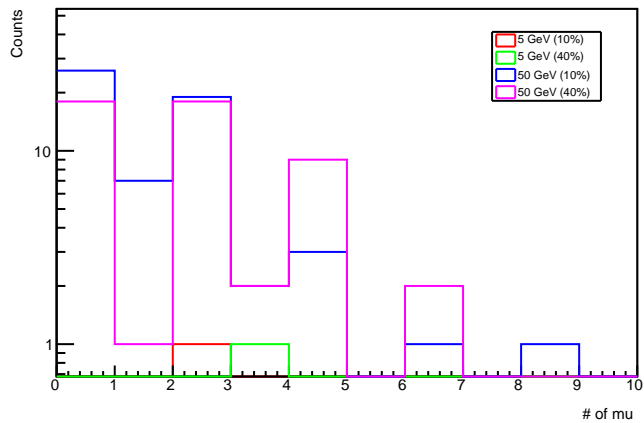
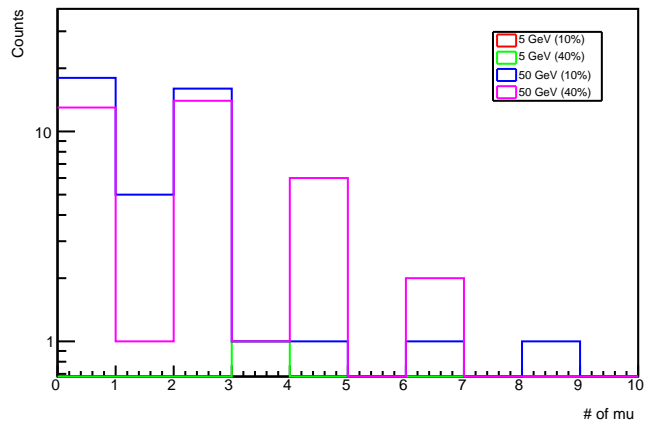
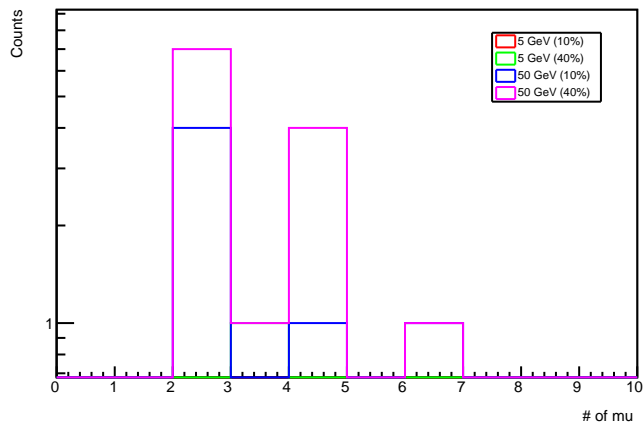
dPhi: gen MET and leading jet: MET > 120 GeV

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

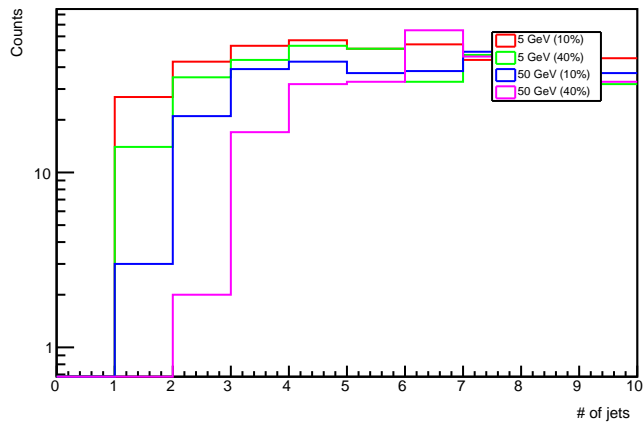
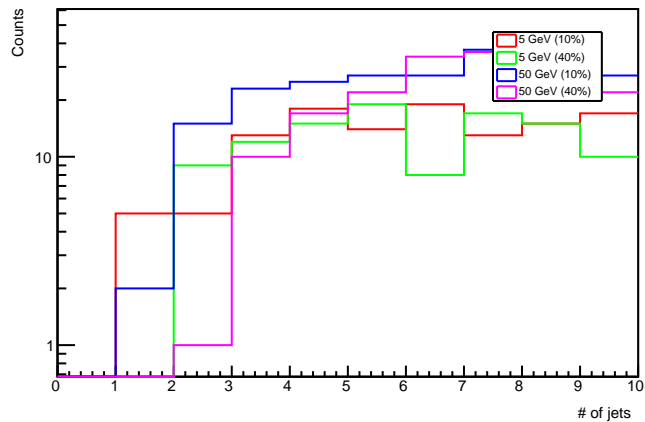
gen number of mu: no cuts

gen number of mu: $n_{\text{jet}} \geq 1$, $j_{1\text{pt}} > 30$ GeV

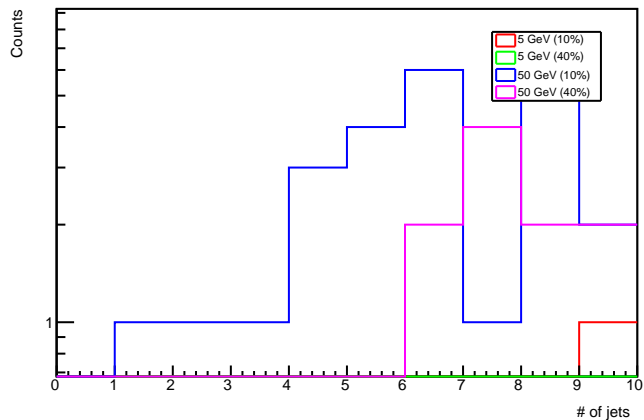
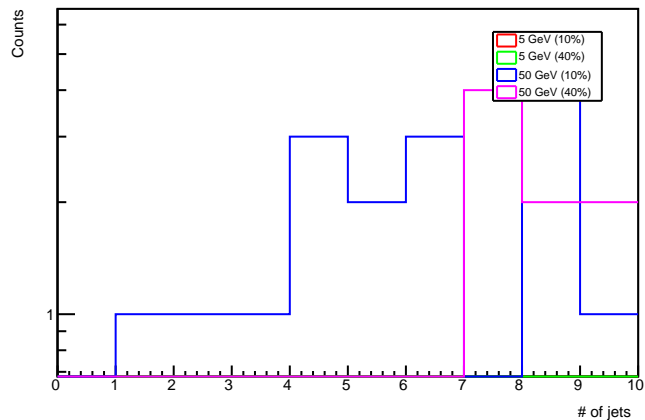
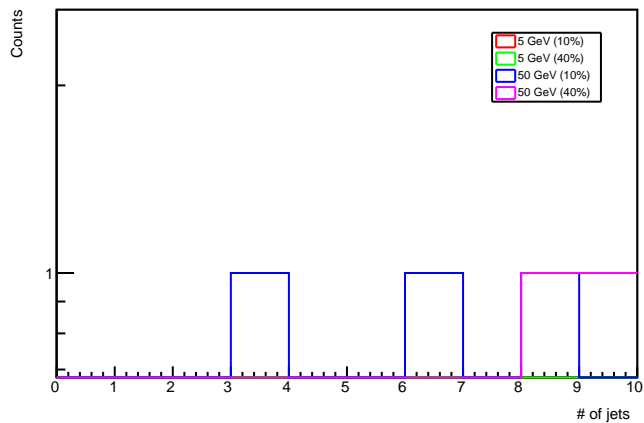
gen number of mu: MET > 120 GeV

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

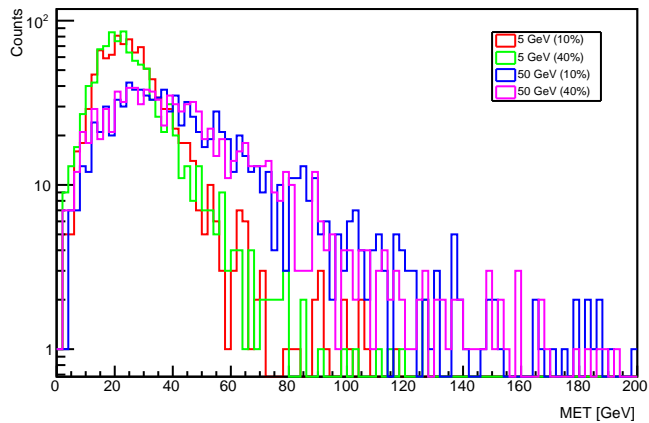
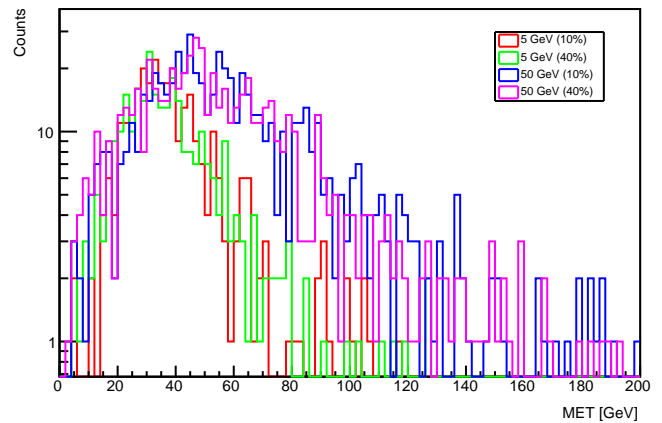
gen number of jets: no cuts

gen number of jets: $n_{\text{jet}} \geq 1$, $j_{1\text{pt}} > 30$ GeV

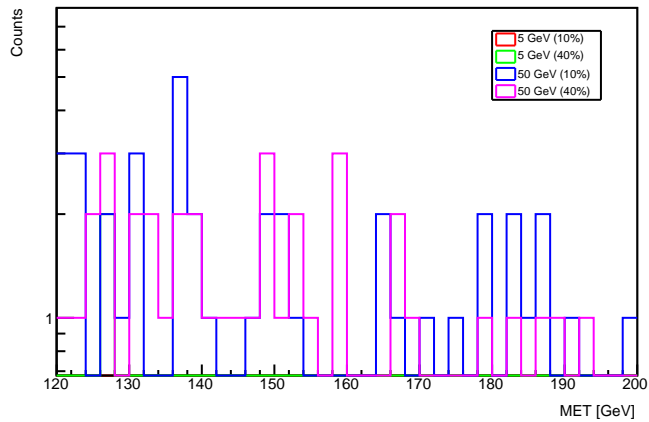
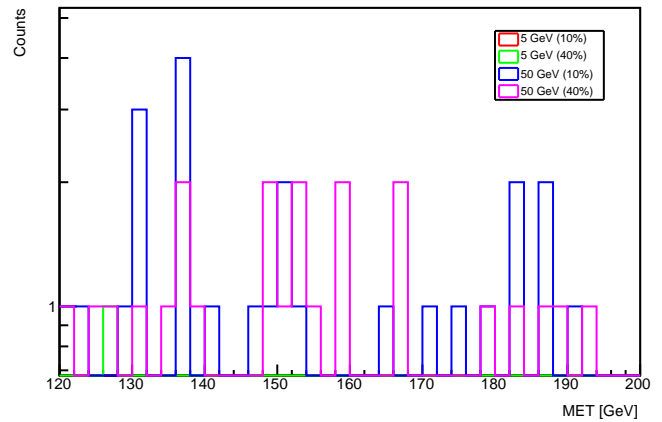
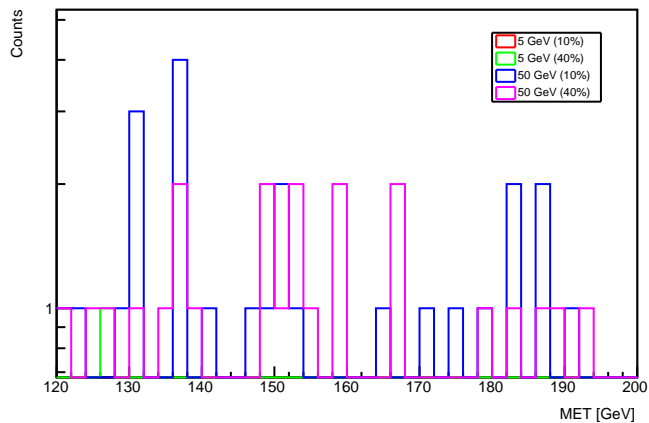
gen number of jets: MET > 120 GeV

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

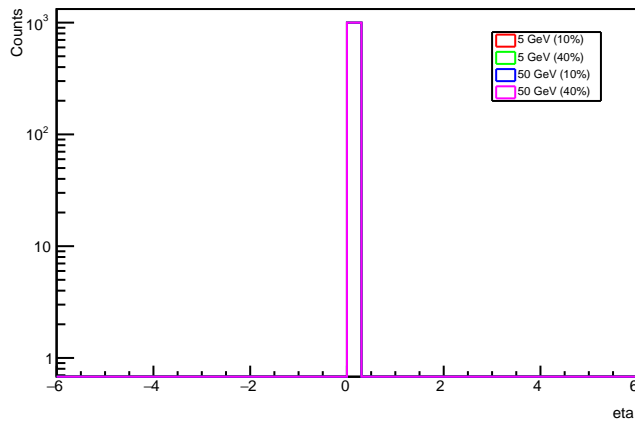
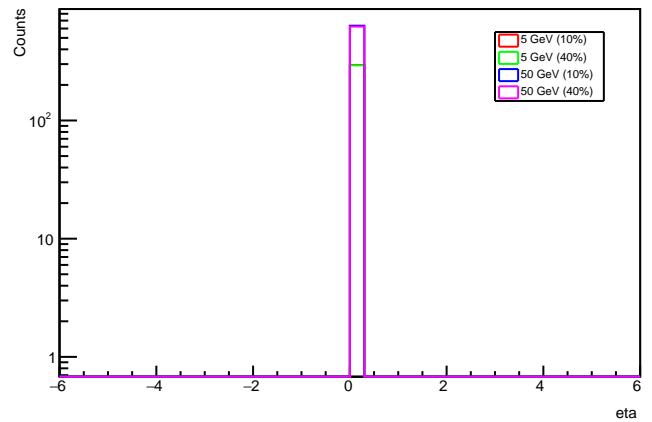
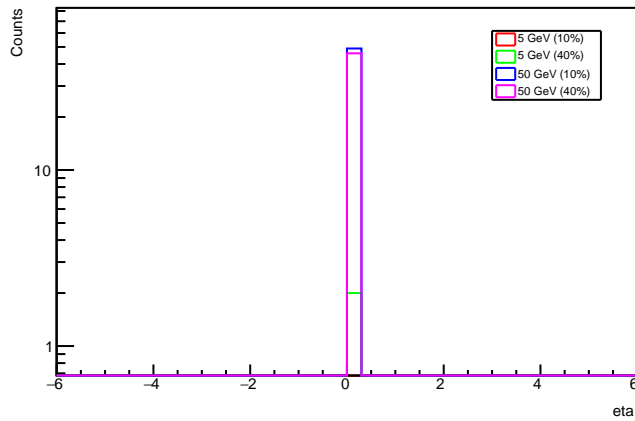
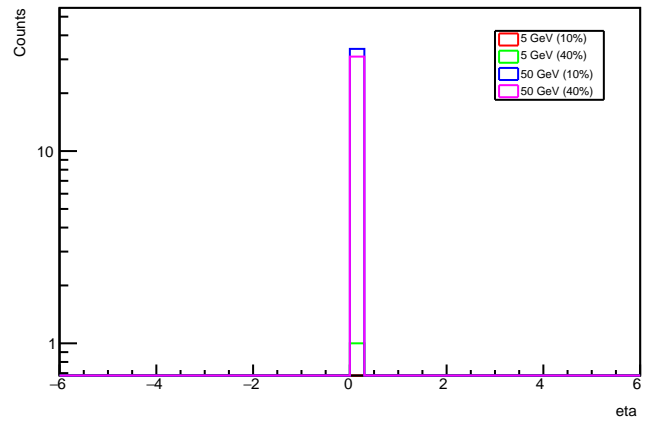
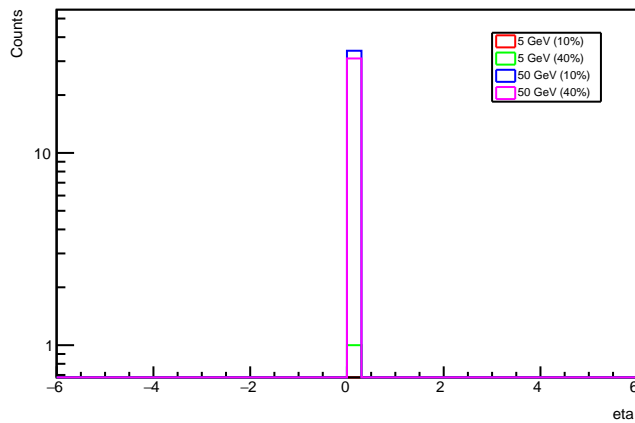
reco leading MET: no cuts

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

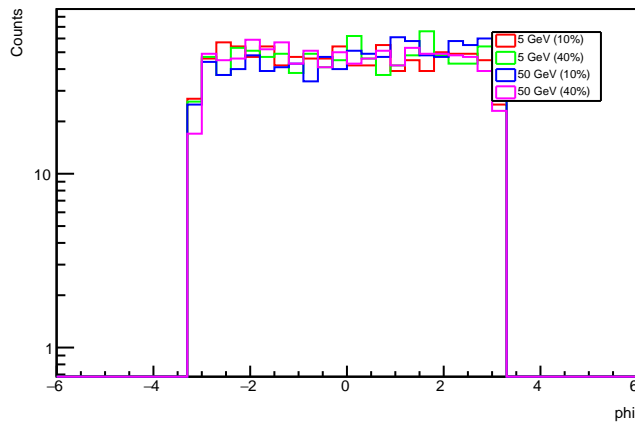
reco leading MET: MET > 120 GeV

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

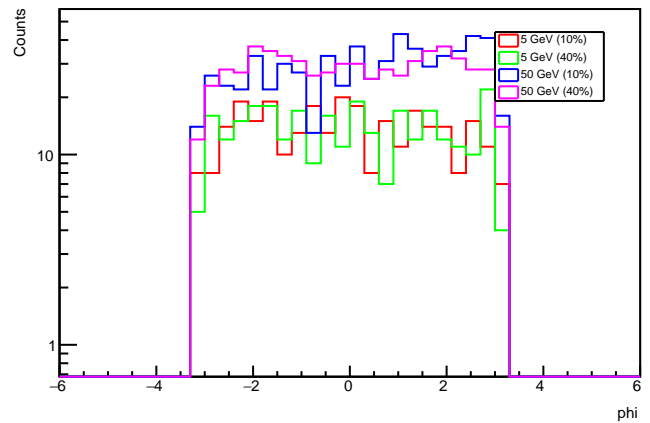
reco leading Met eta: no cuts

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

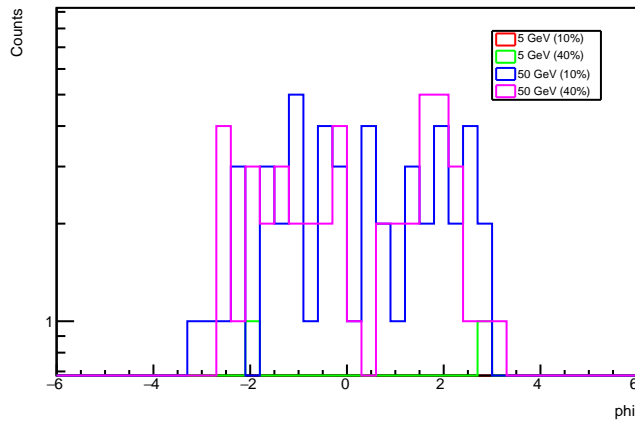
reco leading Met phi: no cuts



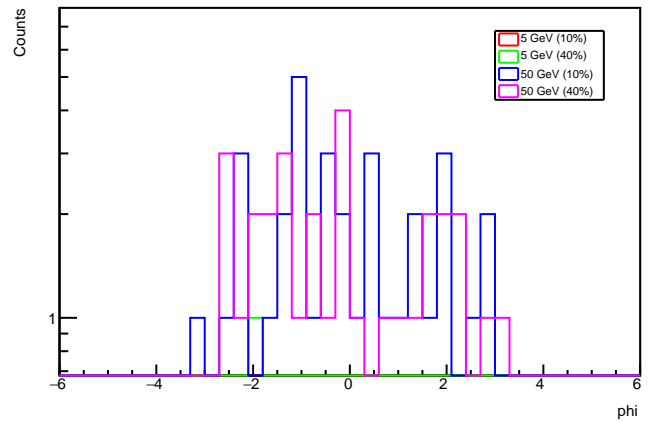
reco leading Met phi: n_jet >=1, j1pt > 30 GeV



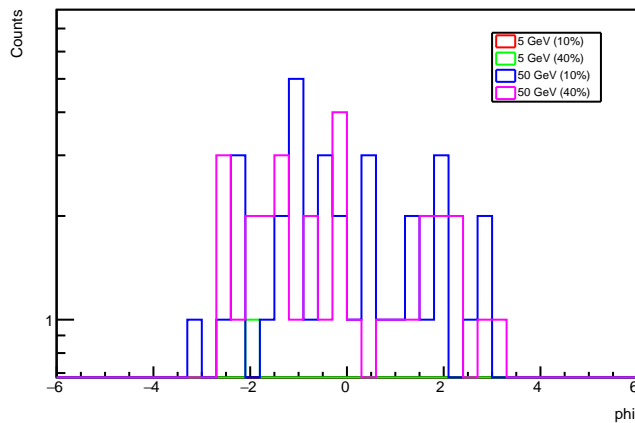
reco leading Met phi: MET > 120 GeV



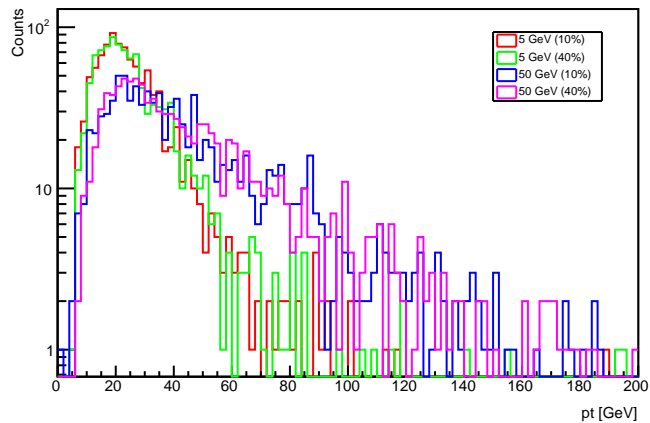
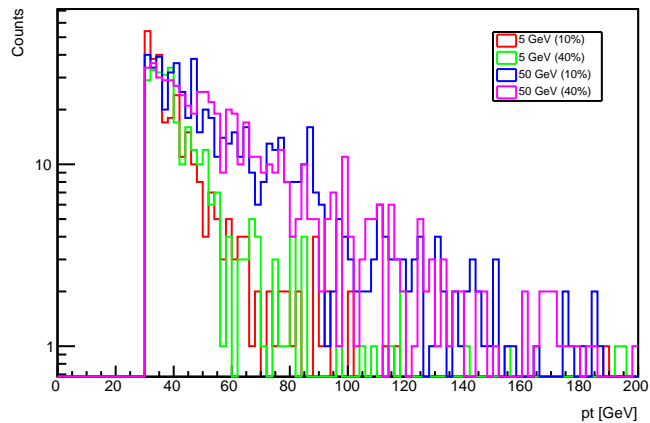
reco leading Met phi: j1pt >120, at most 2 jets w/ pt >30 GeV



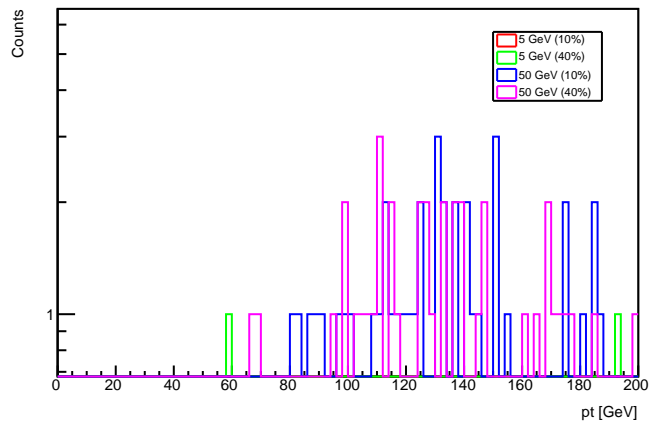
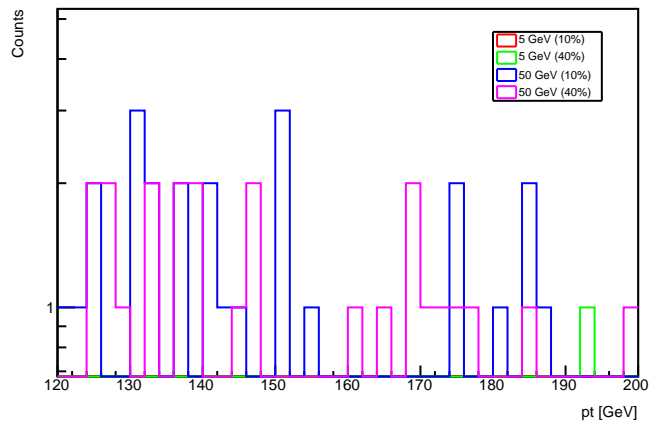
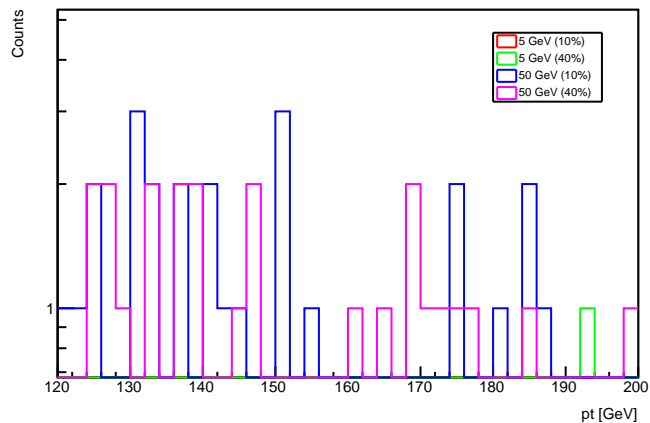
reco leading Met phi: at least 2 mu w/ pt > 2 GeV and eta < 2.5



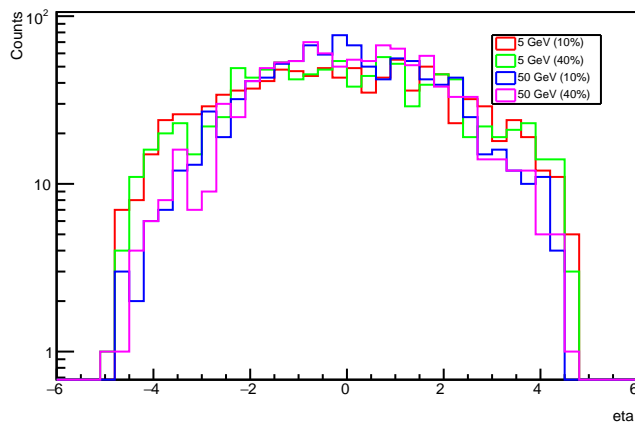
reco leading Jet pt: no cuts

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

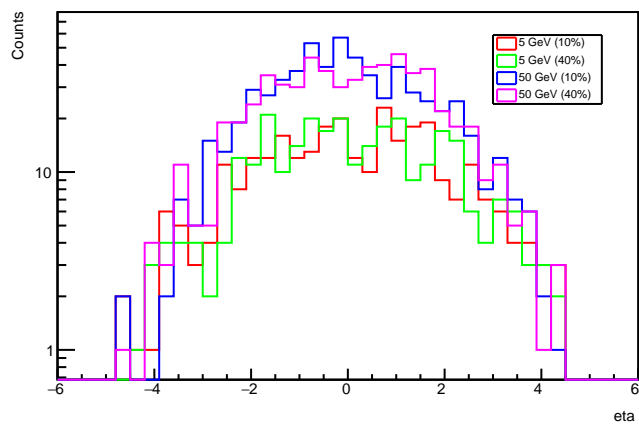
reco leading Jet pt: MET > 120 GeV

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

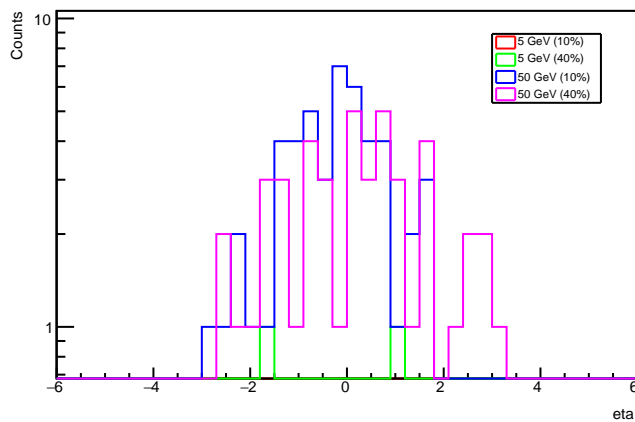
reco leading Jet eta: no cuts



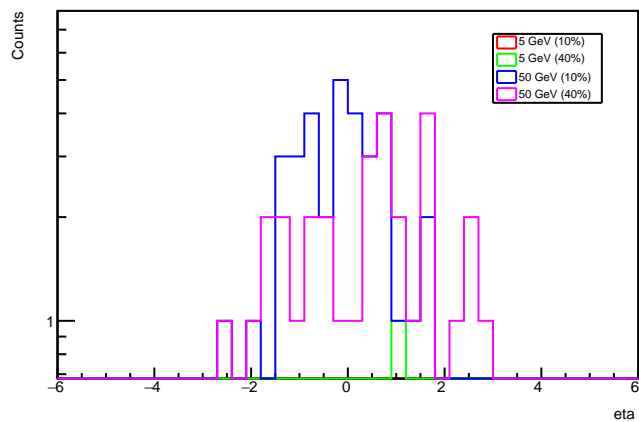
reco leading Jet eta: n_jet >=1, j1pt > 30 GeV



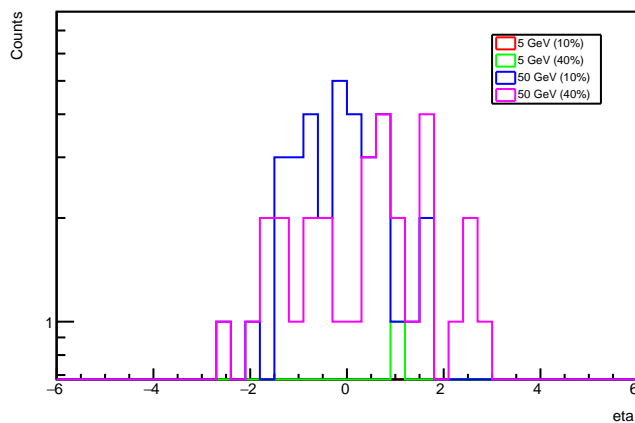
reco leading Jet eta: MET > 120 GeV



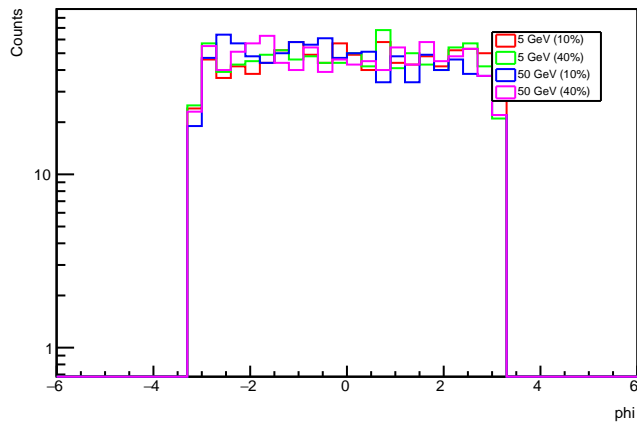
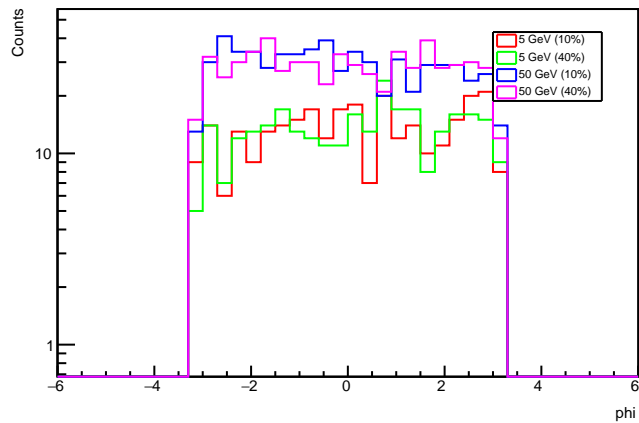
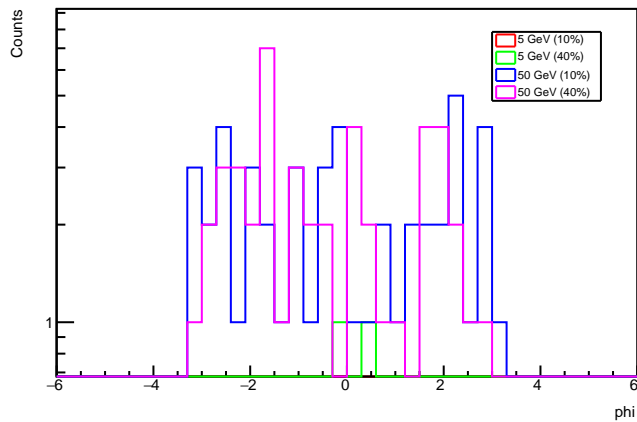
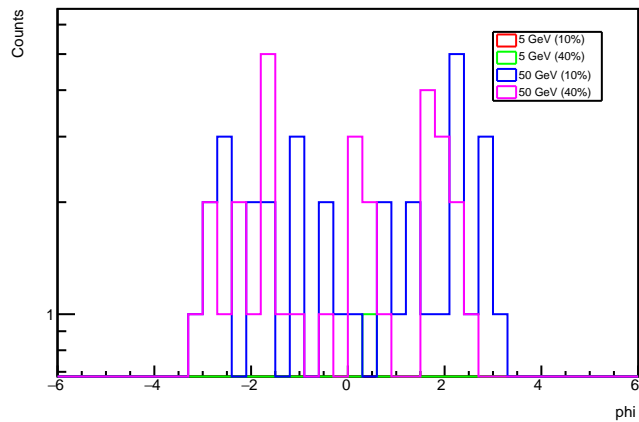
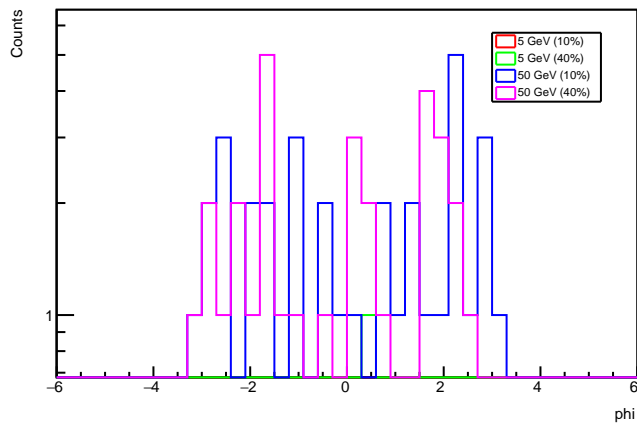
reco leading Jet eta: j1pt >120, at most 2 jets w/ pt >30 GeV



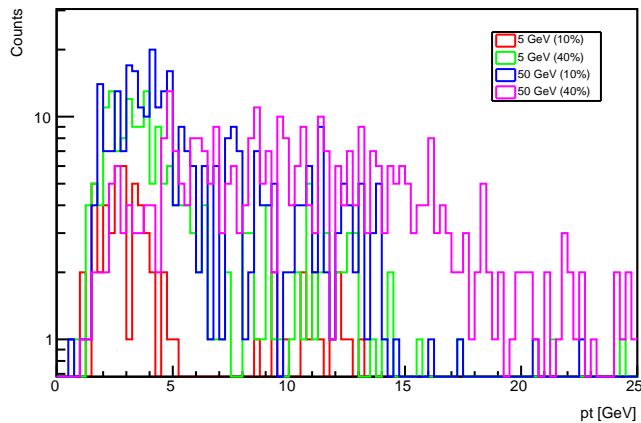
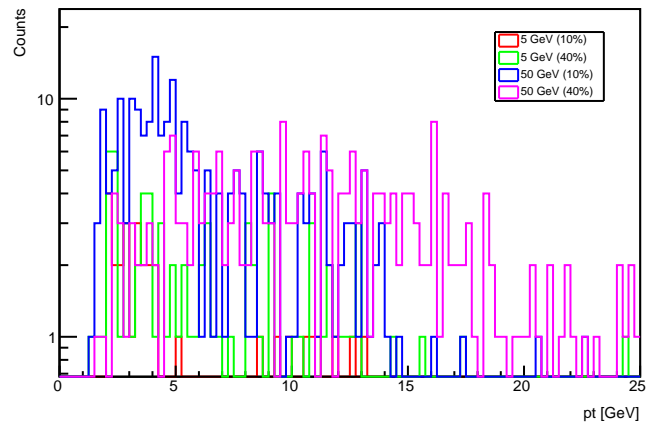
reco leading Jet eta: at least 2 mu w/ pt > 2 GeV and eta < 2.5



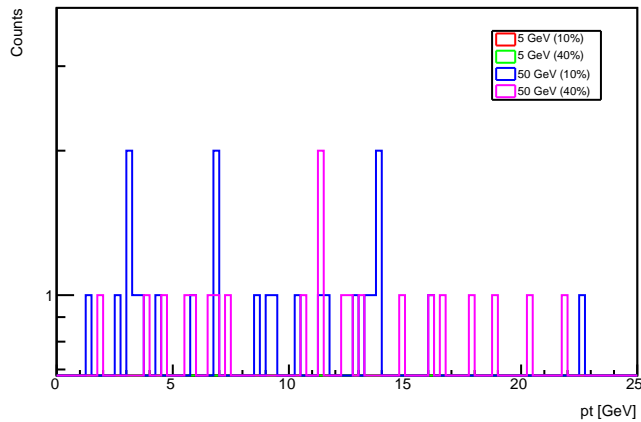
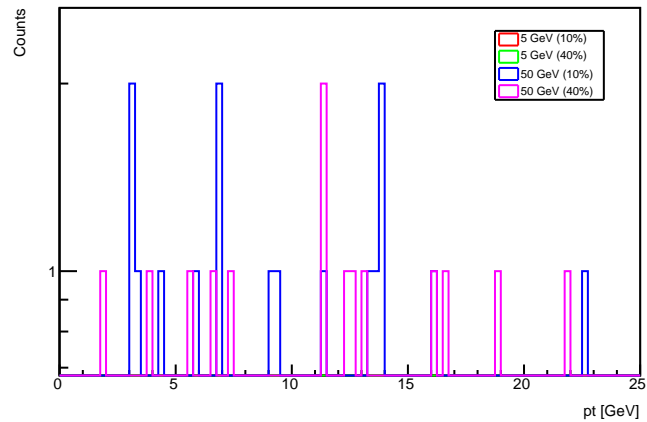
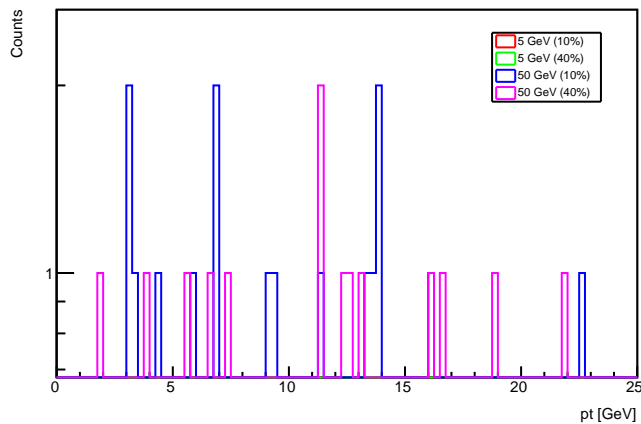
reco leading Jet phi: no cuts

reco leading Jet phi: $n_{\text{jet}} \geq 1$, $j_{1\text{pt}} > 30$ GeVreco leading Jet phi: $\text{MET} > 120$ GeVreco leading Jet phi: $j_{1\text{pt}} > 120$, at most 2 jets w/ $\text{pt} > 30$ GeVreco leading Jet phi: at least 2 mu w/ $\text{pt} > 2$ GeV and $\eta < 2.5$ 

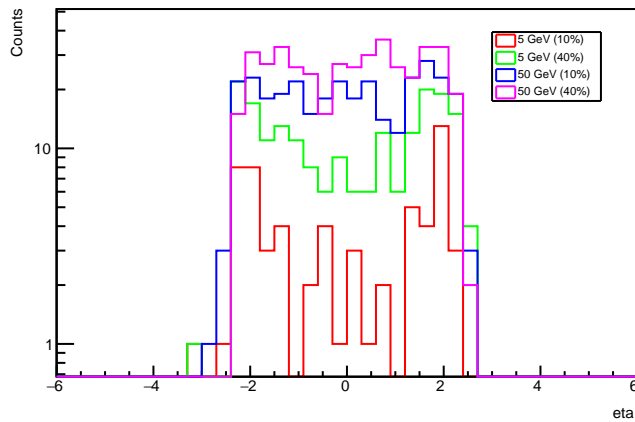
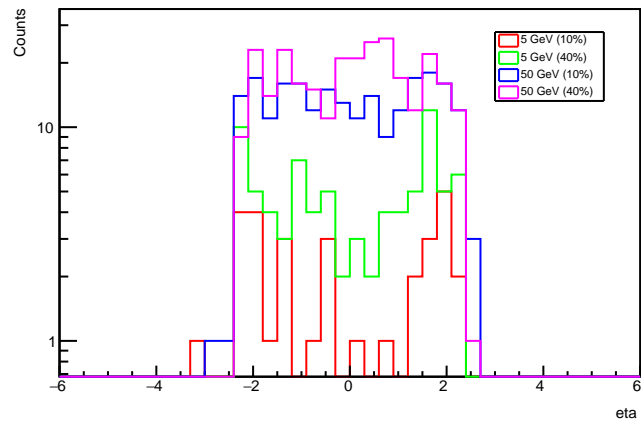
reco leading Mu pt: no cuts

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

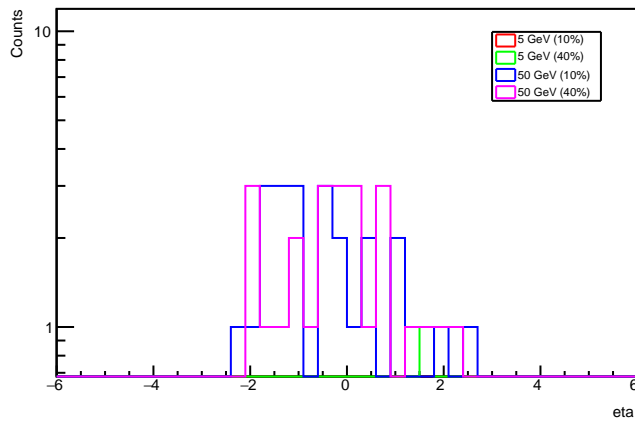
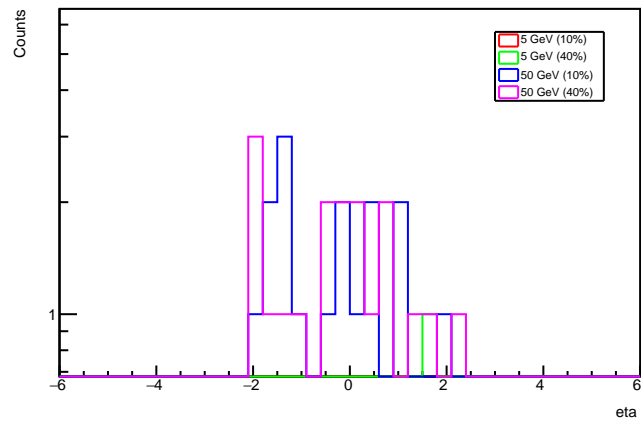
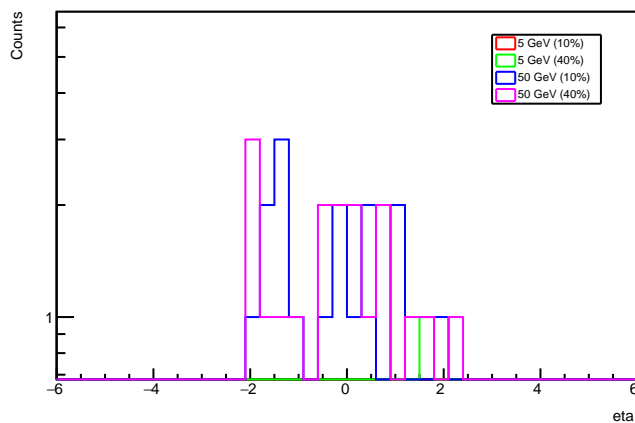
reco leading Mu pt: MET > 120 GeV

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

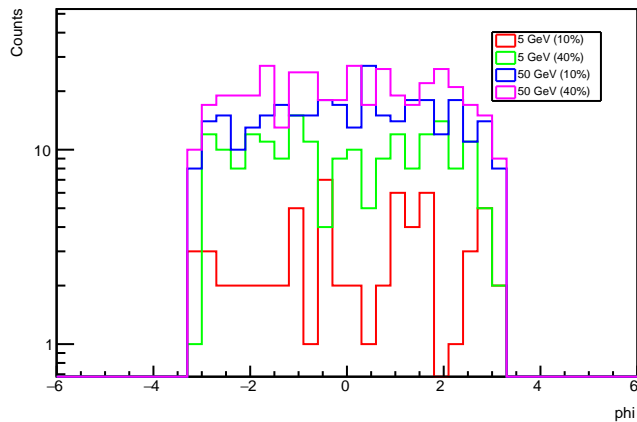
reco leading Mu eta: no cuts

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

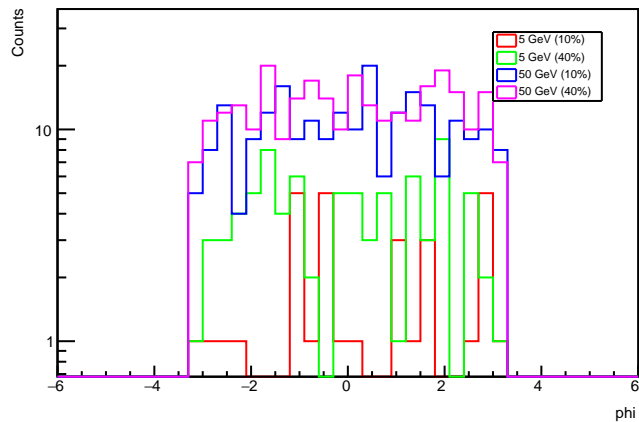
reco leading Mu eta: MET > 120 GeV

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 $\eta < 2.5$ 

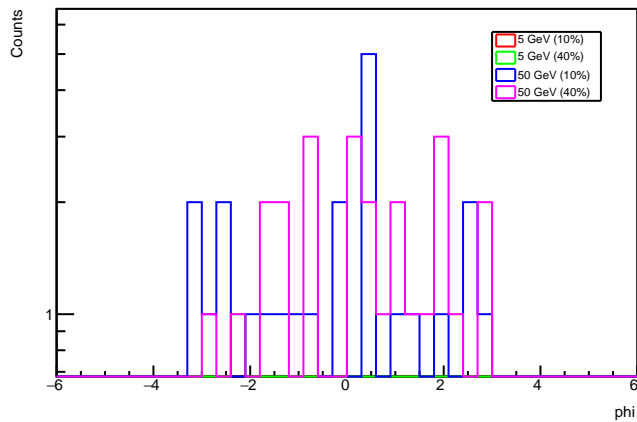
reco leading Mu phi: no cuts



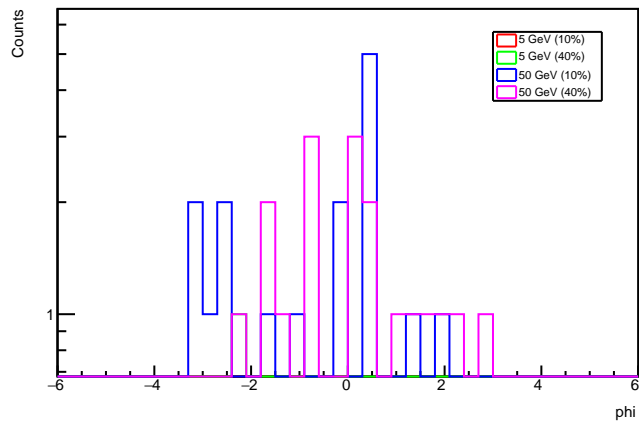
reco leading Mu phi: n_jet >=1, j1pt > 30 GeV



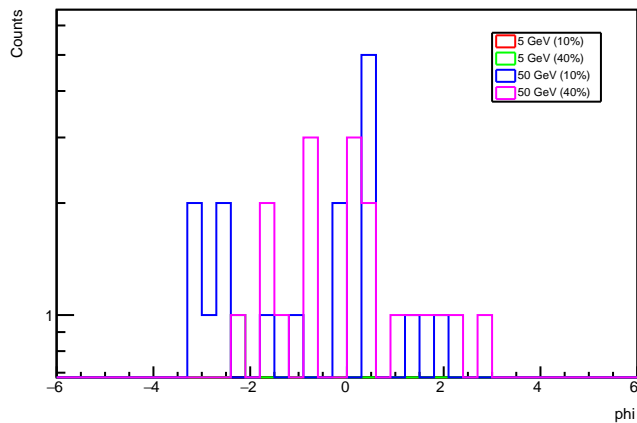
reco leading Mu phi: MET > 120 GeV



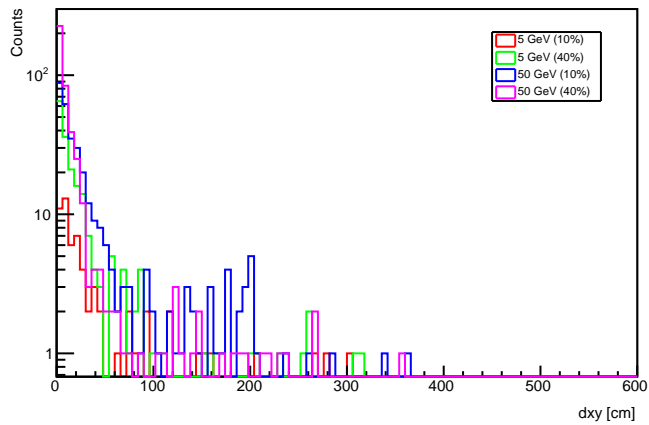
reco leading Mu phi: j1pt >120, at most 2 jets w/ pt >30 GeV



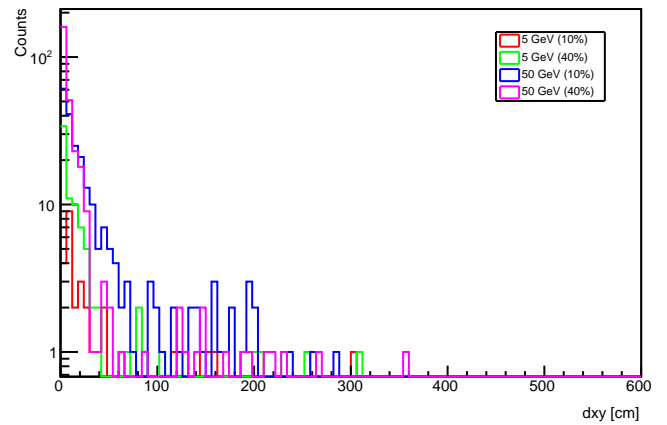
reco leading Mu phi: at least 2 mu w/ pt > 2 GeV and eta < 2.5



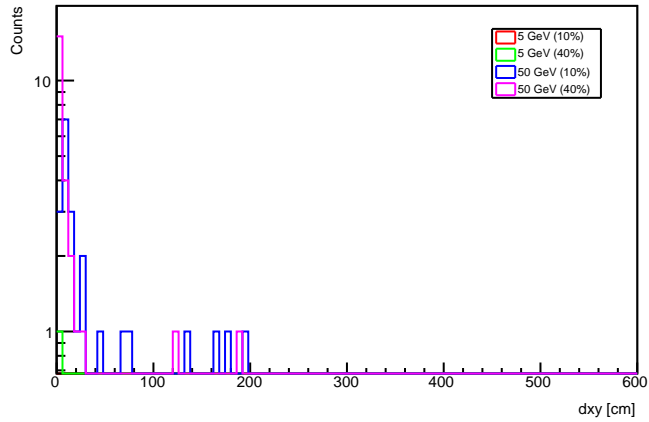
reco leading Mu vxy: no cuts



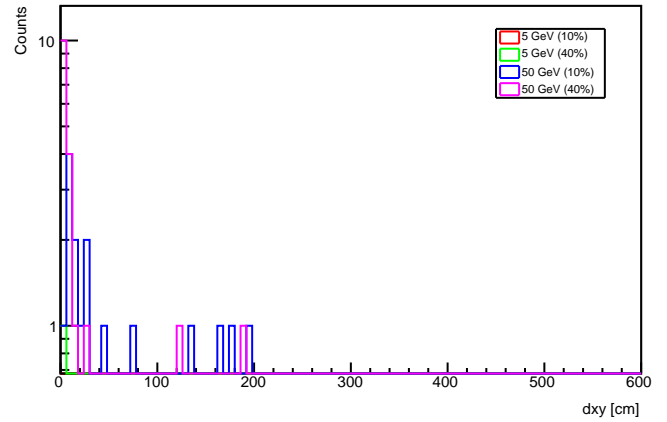
reco leading Mu vxy: n_jet >=1, j1pt > 30 GeV



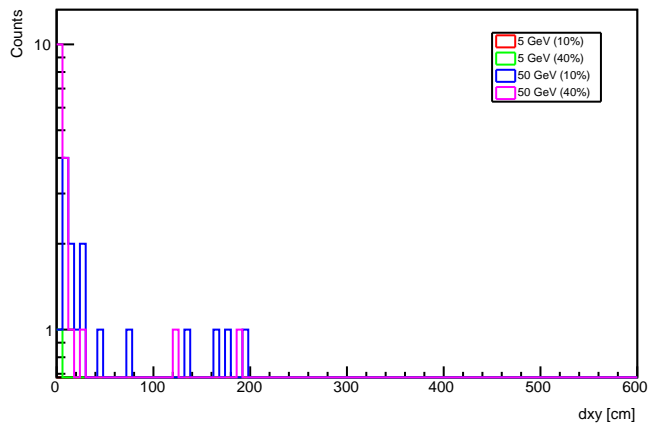
reco leading Mu vxy: MET > 120 GeV



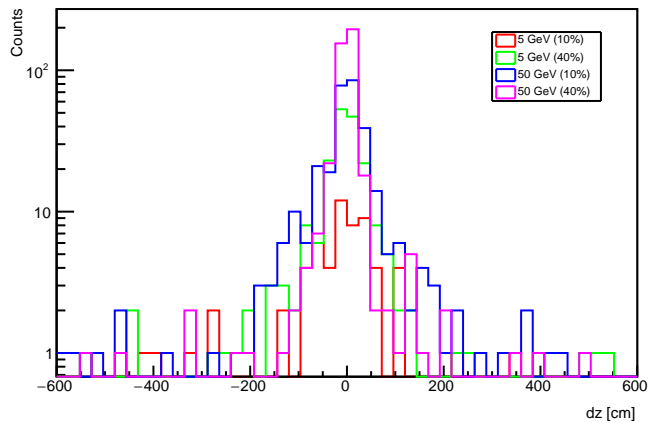
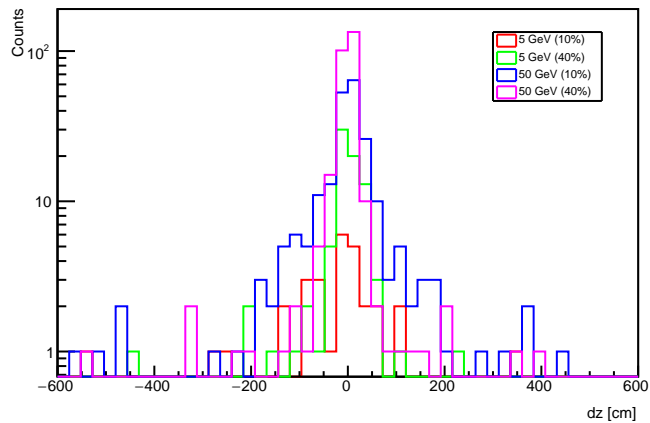
reco leading Mu vxy: j1pt >120, at most 2 jets w/ pt >30 GeV



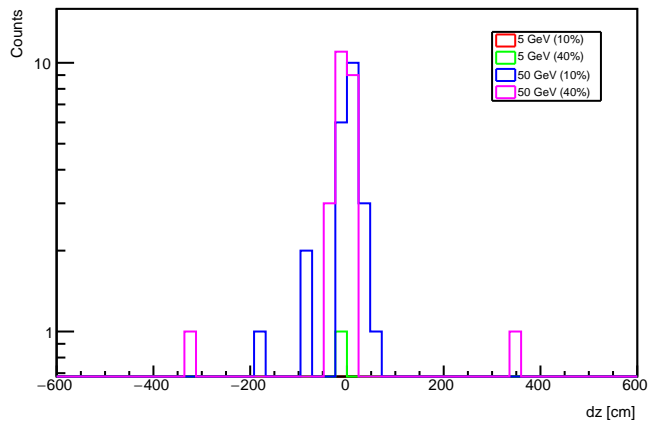
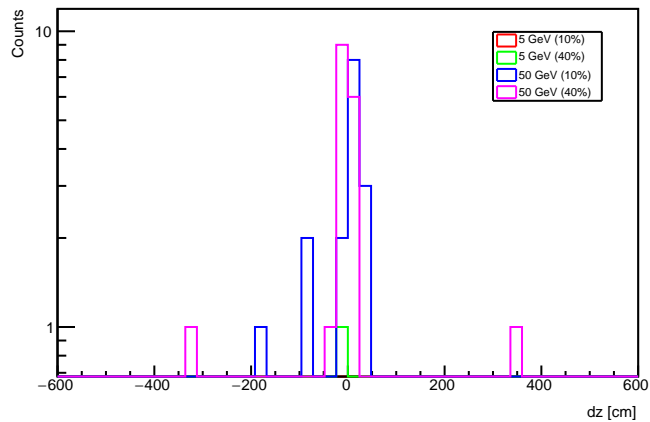
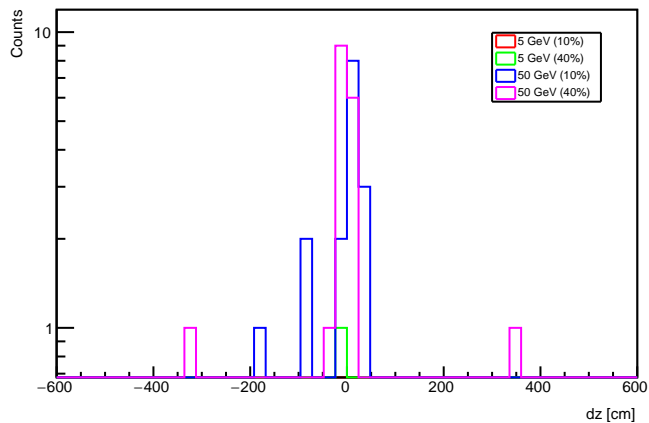
reco leading Mu vxy: at least 2 mu w/ pt > 2 GeV and eta < 2.5



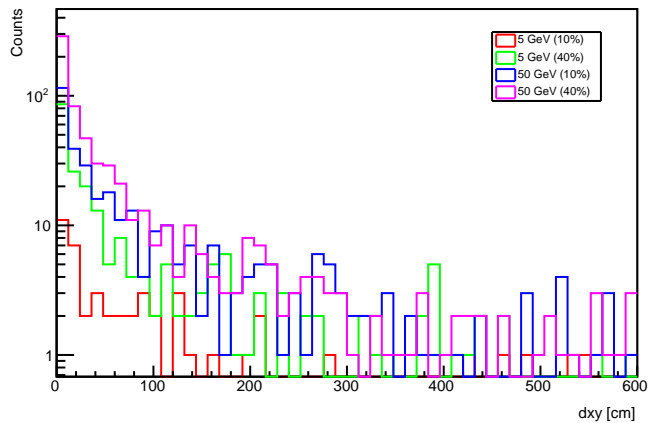
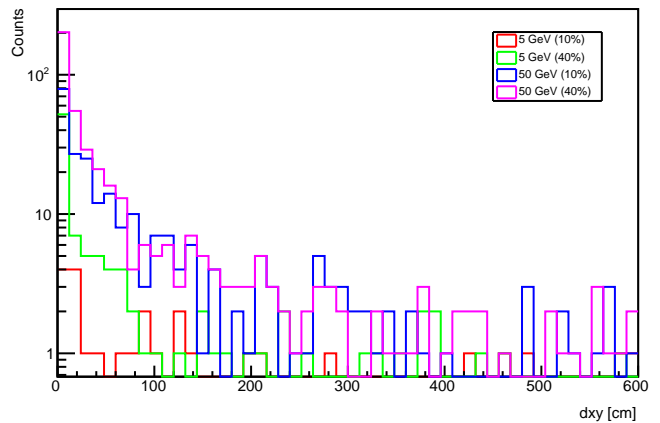
reco leading Mu vz: no cuts

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

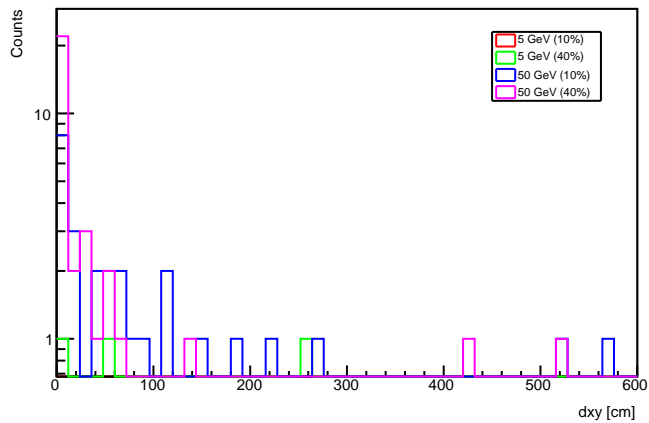
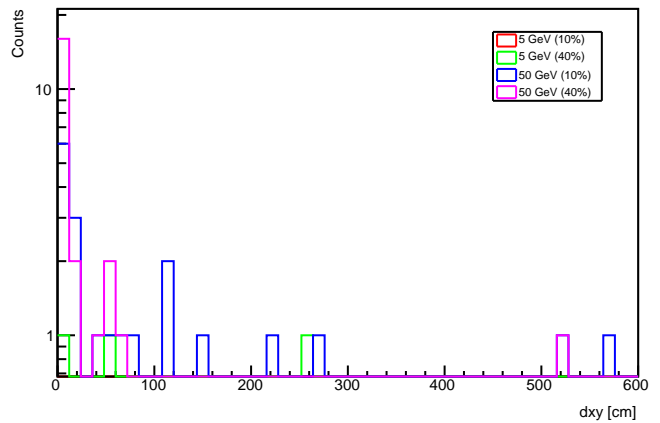
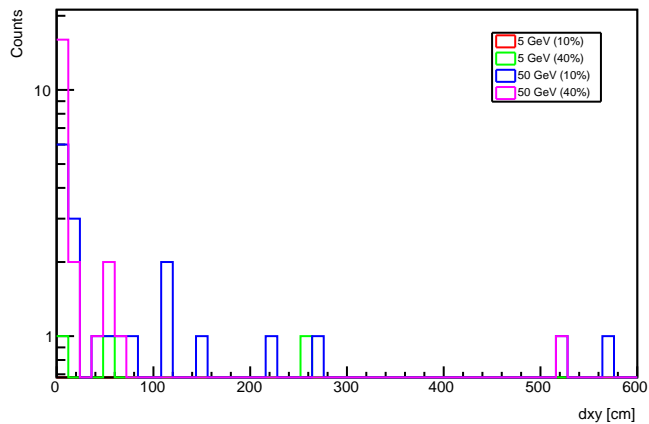
reco leading Mu vz: MET > 120 GeV

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 $\eta < 2.5$ 

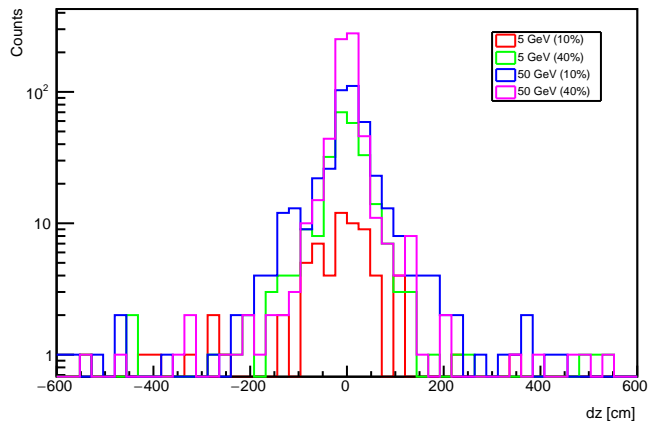
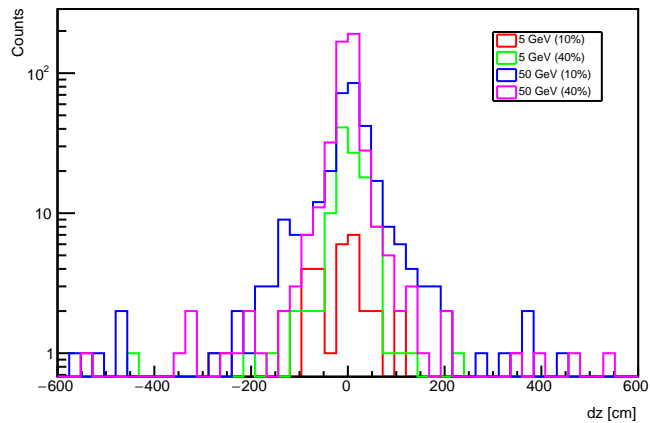
reco all Mu vxy: no cuts

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

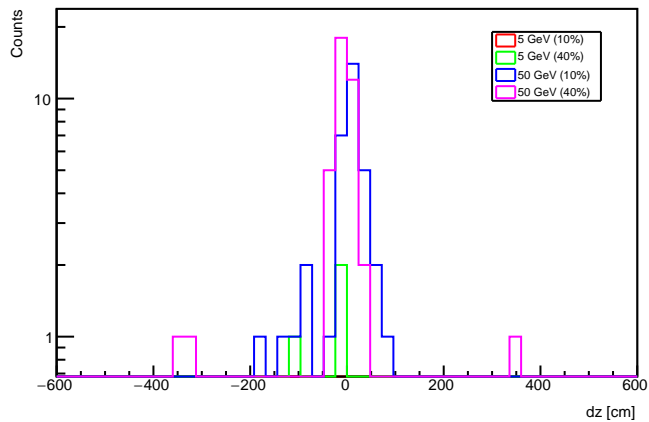
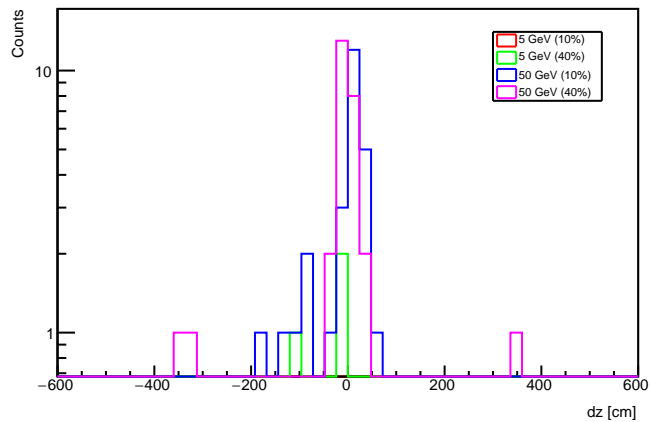
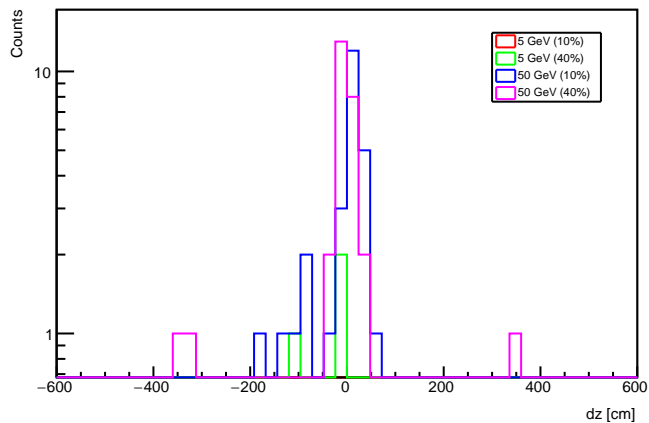
reco all Mu vxy: MET > 120 GeV

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

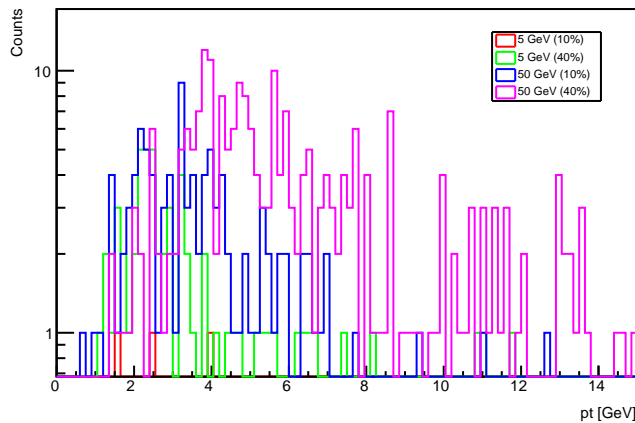
reco all Mu vz: no cuts

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

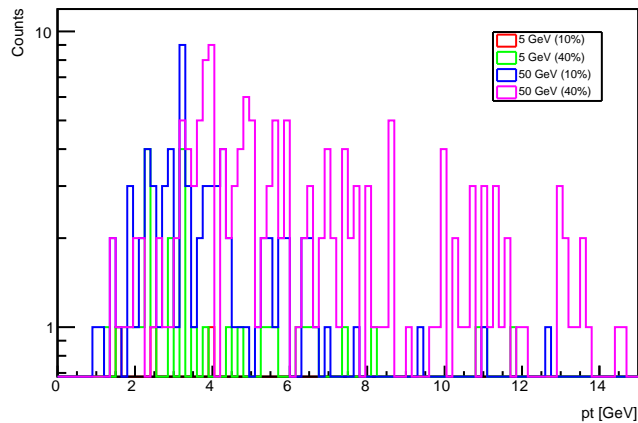
reco all Mu vz: MET > 120 GeV

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

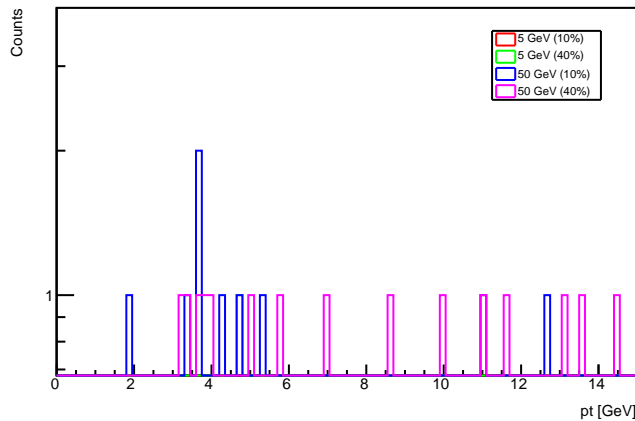
reco subleading Mu pt: no cuts



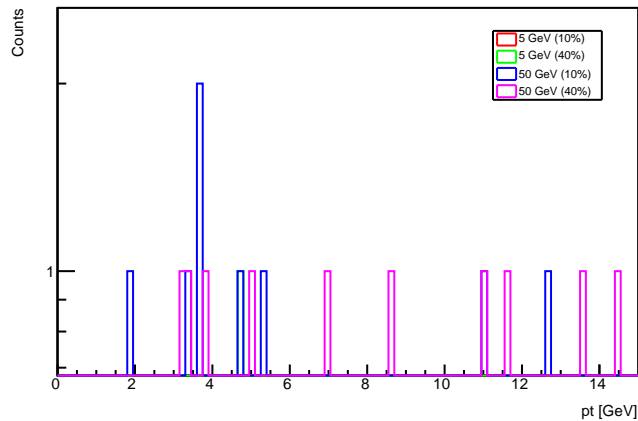
reco subleading Mu pt: n_jet >=1, j1pt > 30 GeV



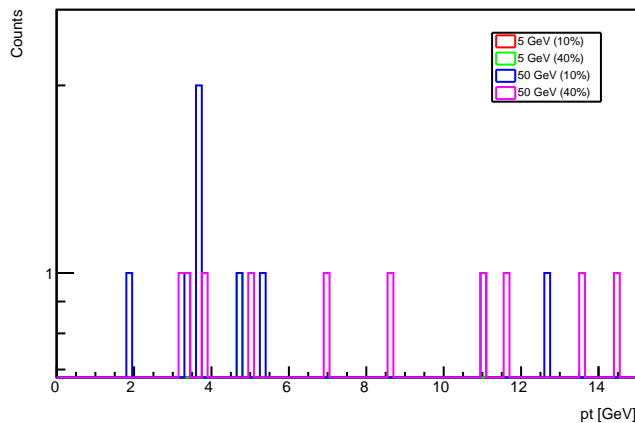
reco subleading Mu pt: MET > 120 GeV



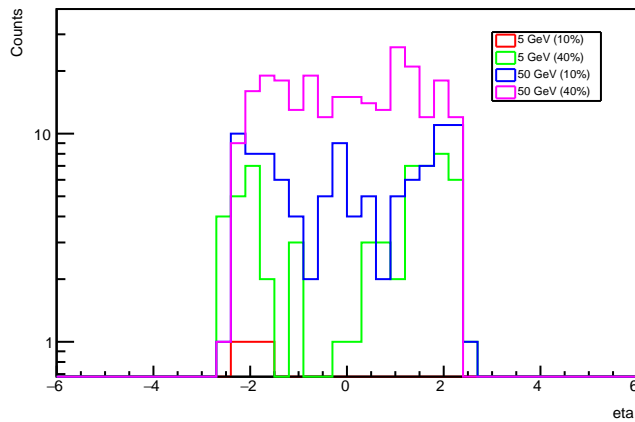
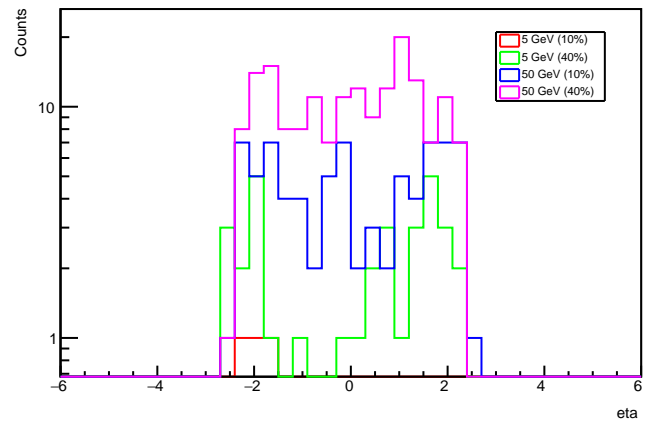
reco subleading Mu pt: j1pt >120, at most 2 jets w/ pt >30 GeV



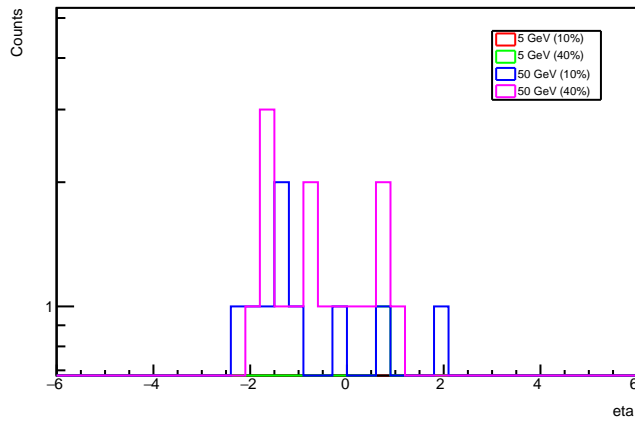
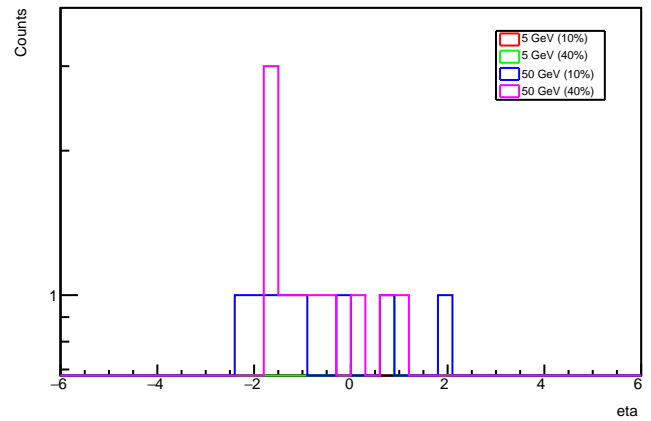
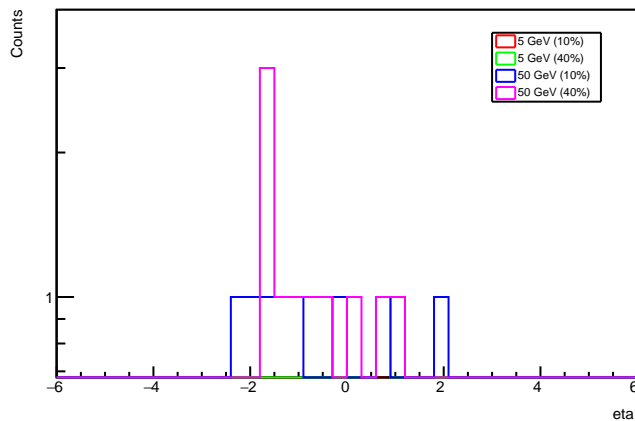
reco subleading Mu pt: at least 2 mu w/ pt > 2 GeV and eta<2.5



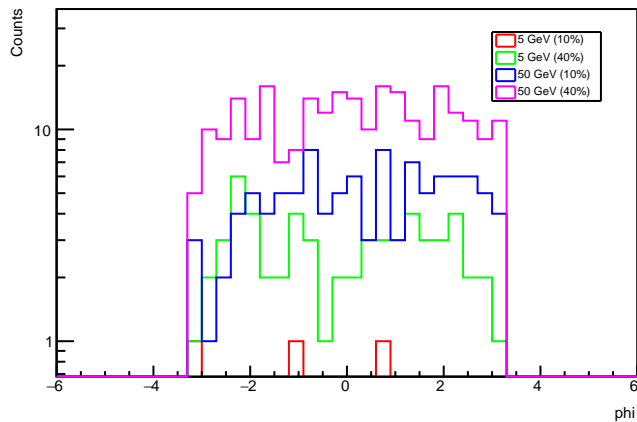
reco subleading Mu eta: no cuts

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

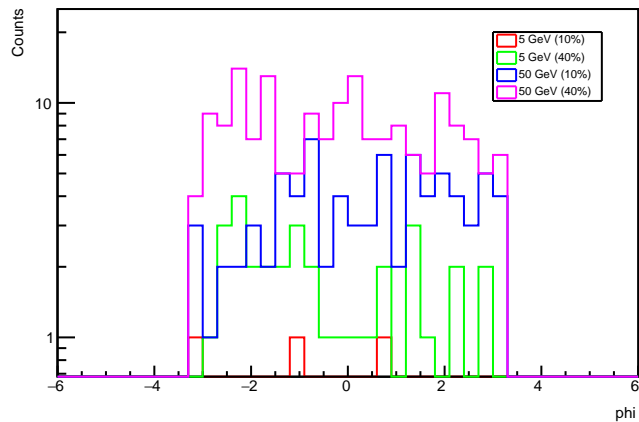
reco subleading Mu eta: MET > 120 GeV

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

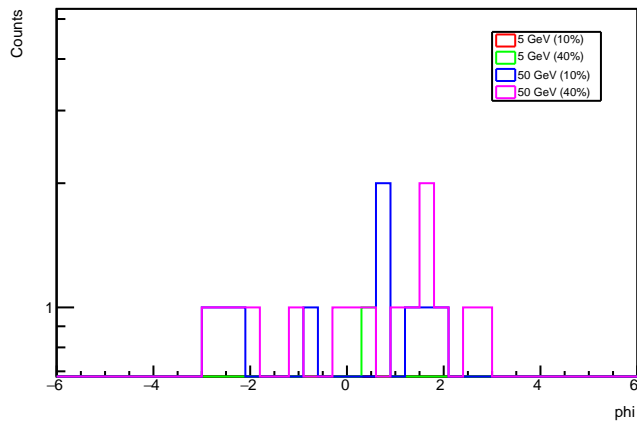
reco subleading Mu phi: no cuts



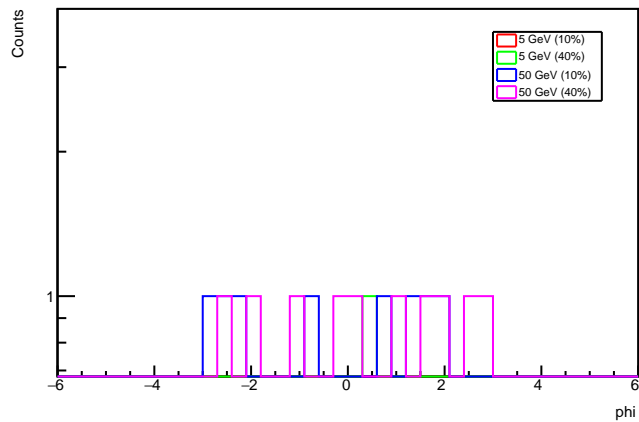
reco subleading Mu phi: n_jet >= 1, j1pt > 30 GeV



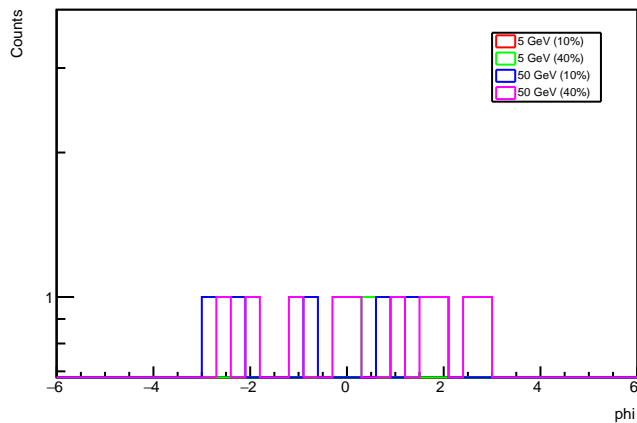
reco subleading Mu phi: MET > 120 GeV



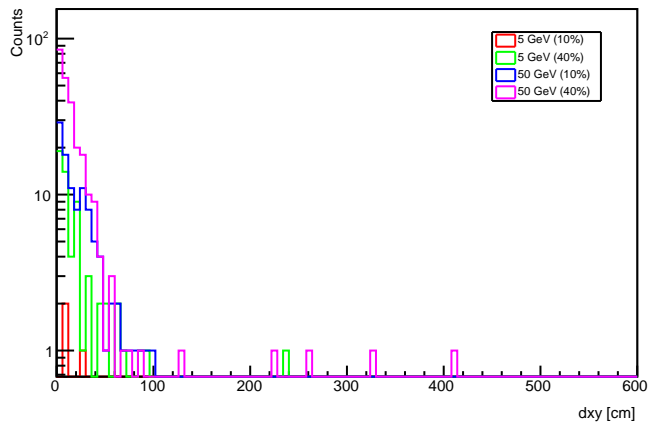
reco subleading Mu phi: j1pt > 120, at most 2 jets w/ pt > 30 GeV



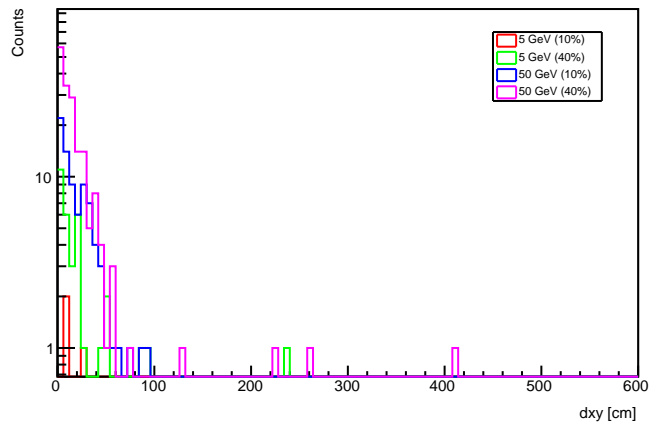
reco subleading Mu phi: at least 2 mu w/ pt > 2 GeV and eta < 2.5



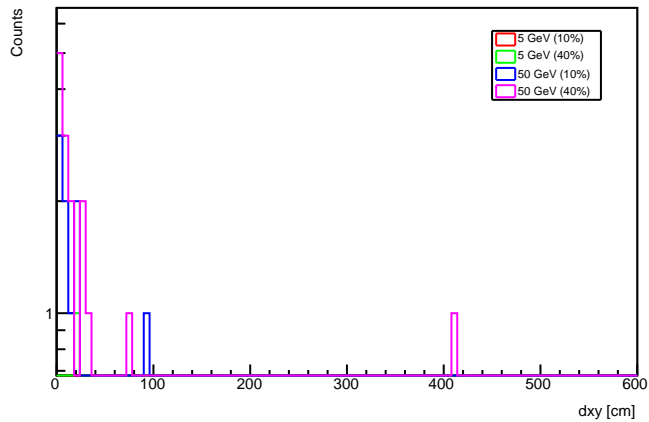
reco subleading Mu vxy: no cuts



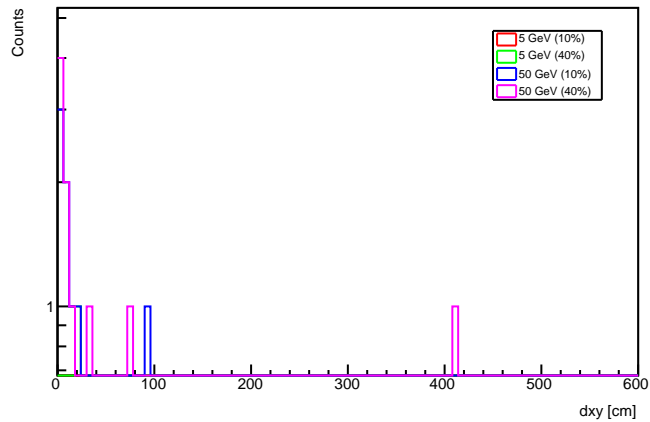
reco subleading Mu vxy: n_jet >=1, j1pt > 30 GeV



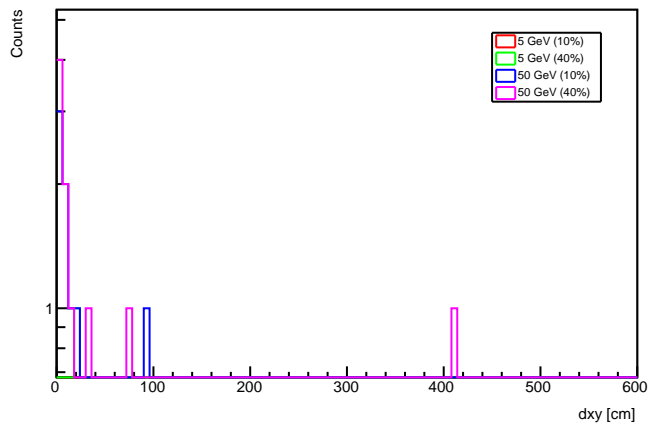
reco subleading Mu vxy: MET > 120 GeV



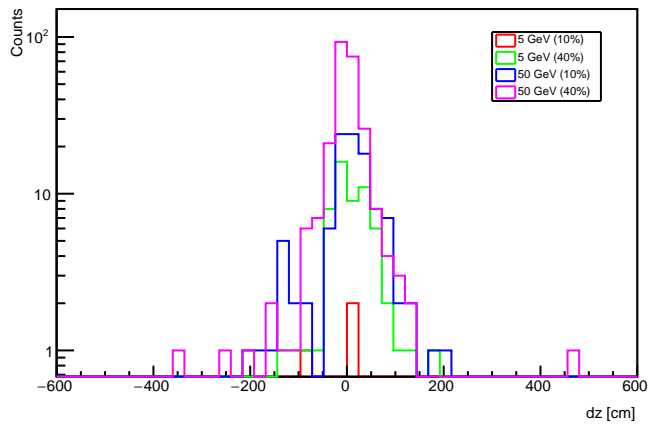
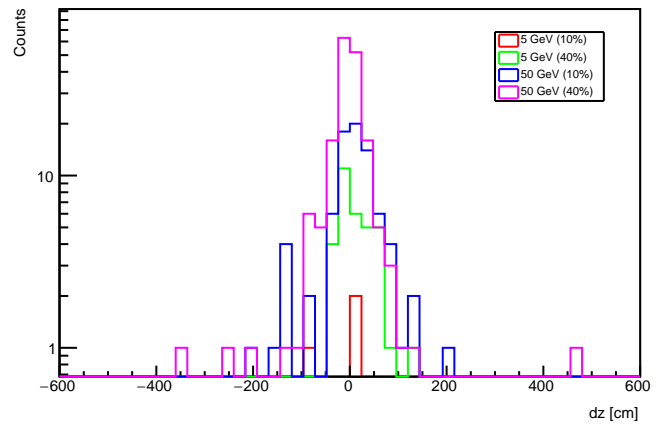
reco subleading Mu vxy: j1pt >120, at most 2 jets w/ pt >30 GeV



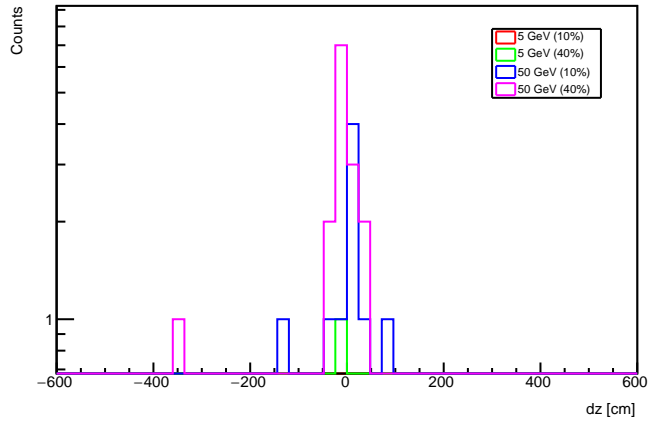
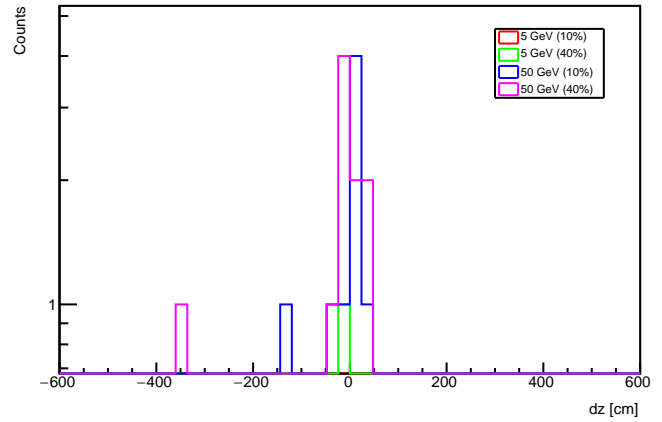
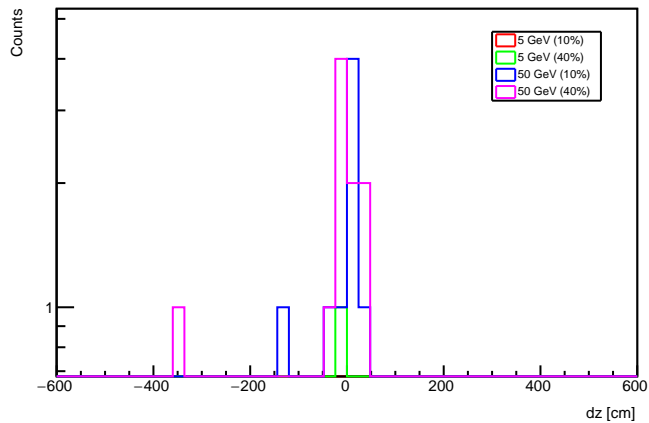
reco subleading Mu vxy: at least 2 mu w/ pt > 2 GeV and eta < 2.5



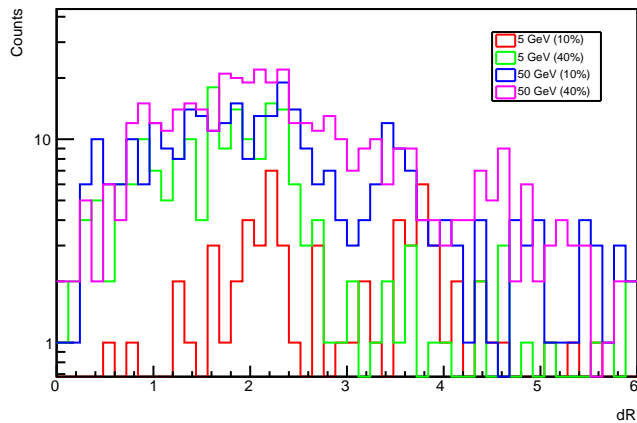
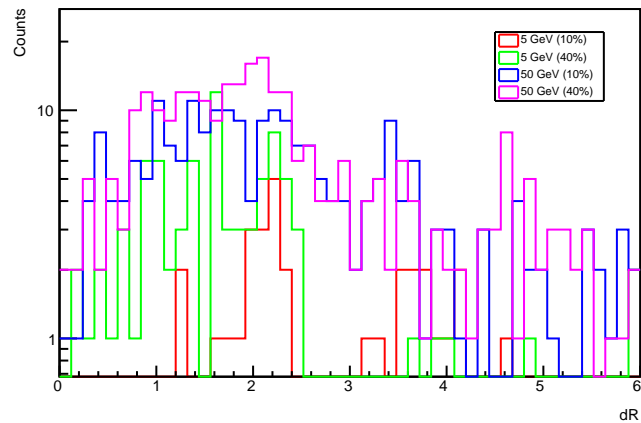
reco subleading Mu vz: no cuts

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

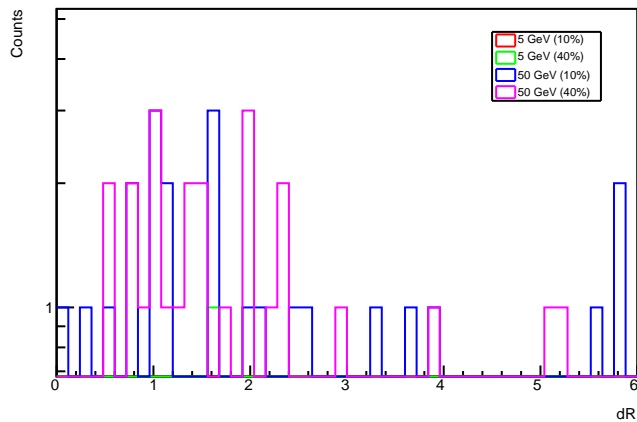
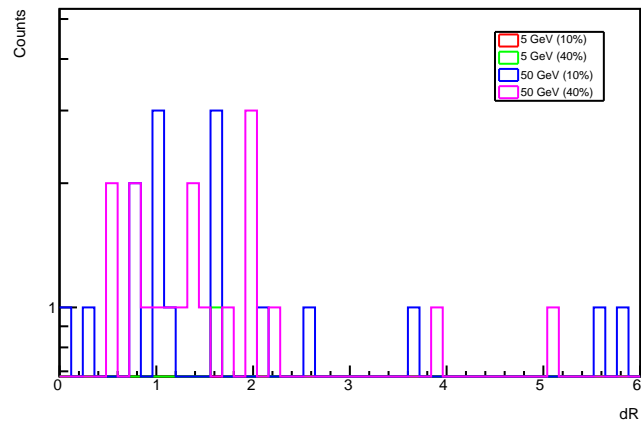
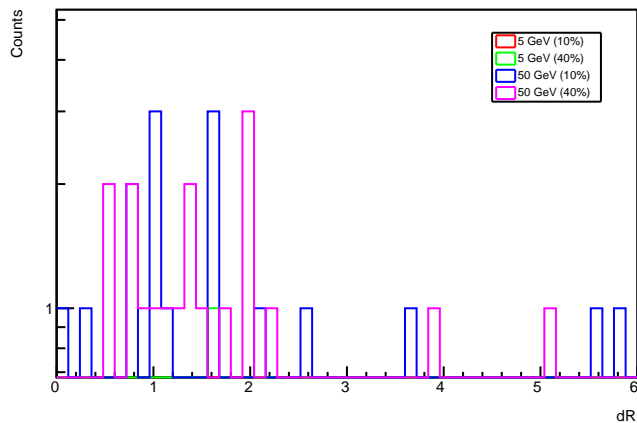
reco subleading Mu vz: MET > 120 GeV

reco subleading Mu vz: $j1_{\text{pt}} > 120$, at most 2 jets w/ $pt > 30$ GeVreco subleading Mu vz: at least 2 mu w/ $pt > 2$ GeV and $|\eta| < 2.5$ 

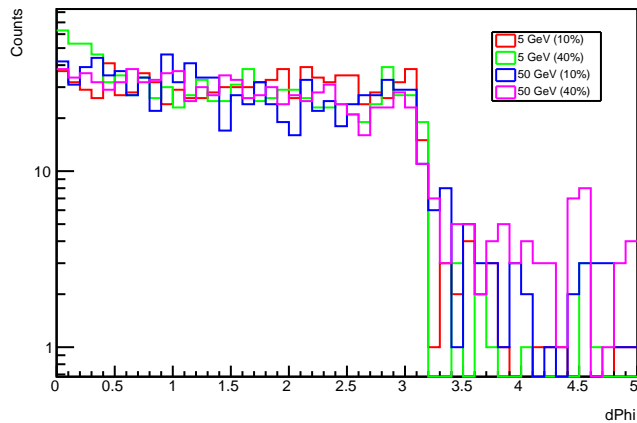
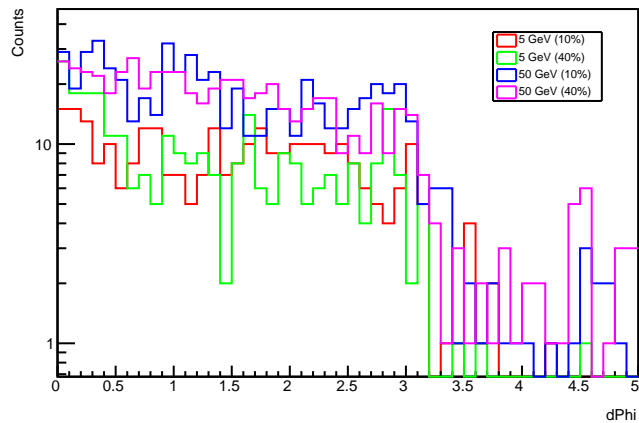
dR: reco leading mu and subleading mu: no cuts

dR: reco leading mu and subleading mu: $n_{\text{jet}} \geq 1$, $j1pt > 30$ GeV

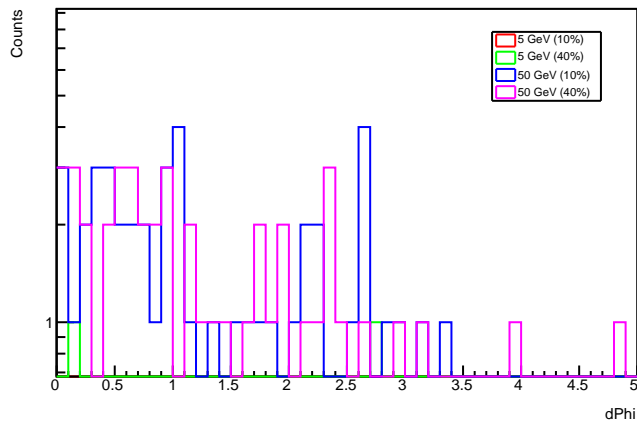
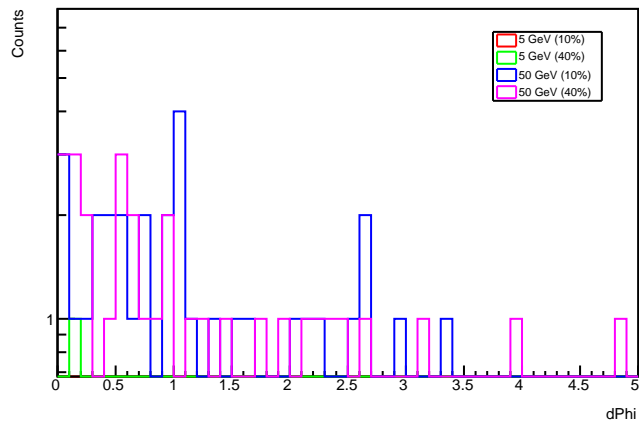
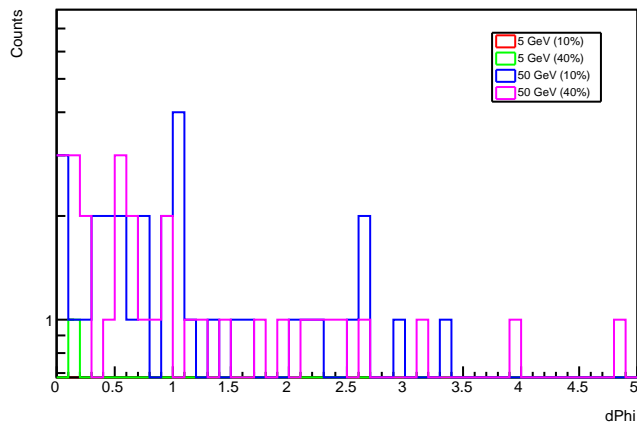
dR: reco leading mu and subleading mu: MET > 120 GeV

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

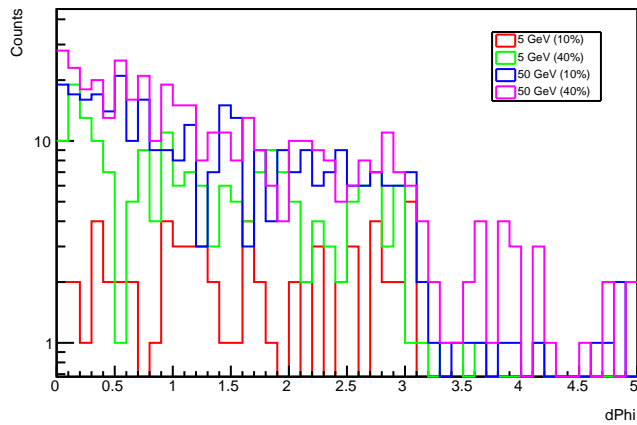
dPhi: reco MET and leading mu: no cuts

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

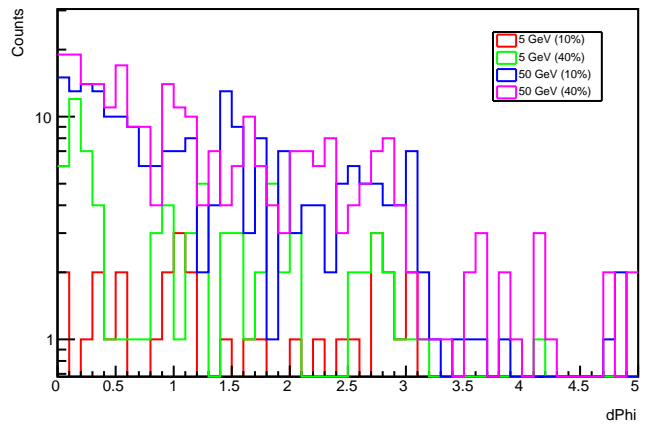
dPhi: reco MET and leading mu: MET > 120 GeV

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

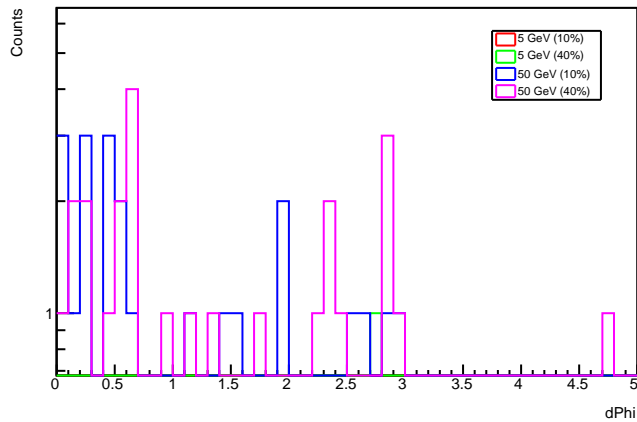
dPhi: reco leading mu and subleading mu: no cuts



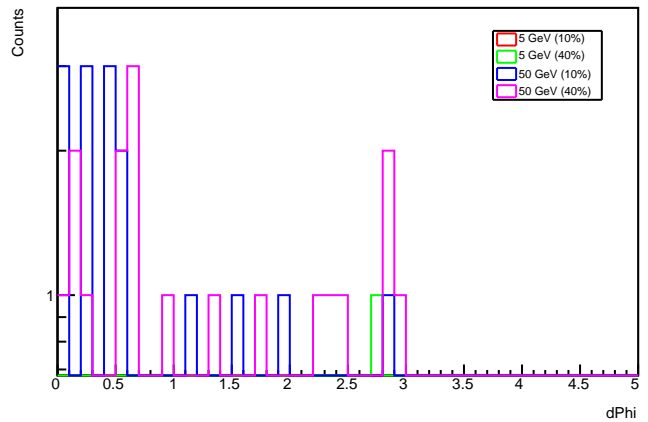
dPhi: reco leading mu and subleading mu: $n_{\text{jet}} \geq 1$, $j_{1\text{pt}} > 30$ GeV



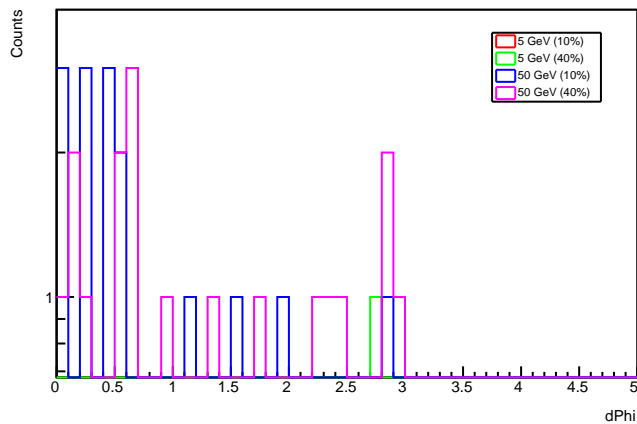
dPhi: reco leading mu and subleading mu: MET > 120 GeV



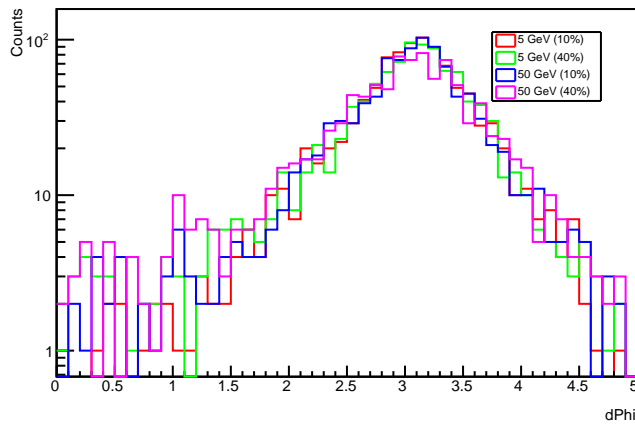
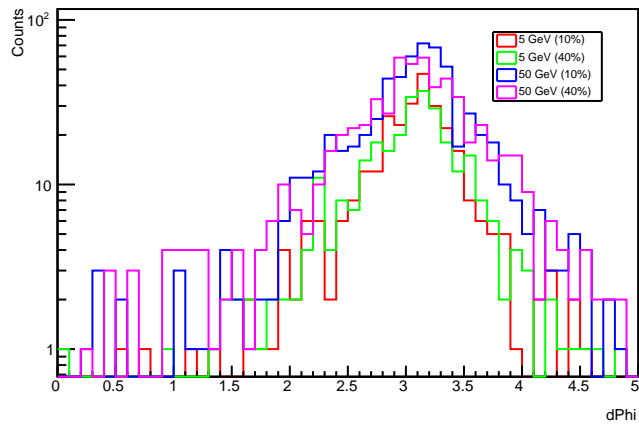
dPhi: reco leading mu and subleading mu: $j_{1\text{pt}} > 120$, at most 2 jets w/ $p_{\text{T}} > 30$ GeV



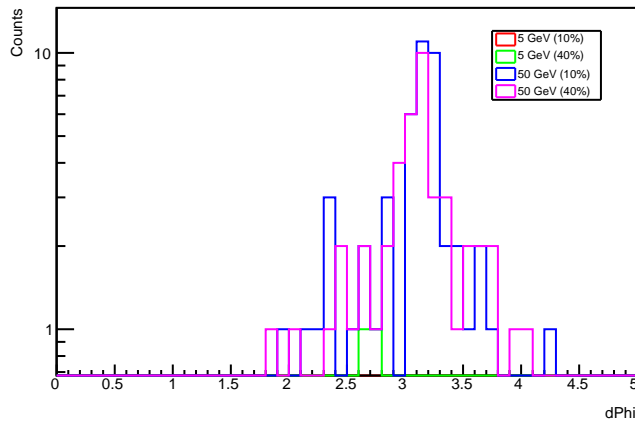
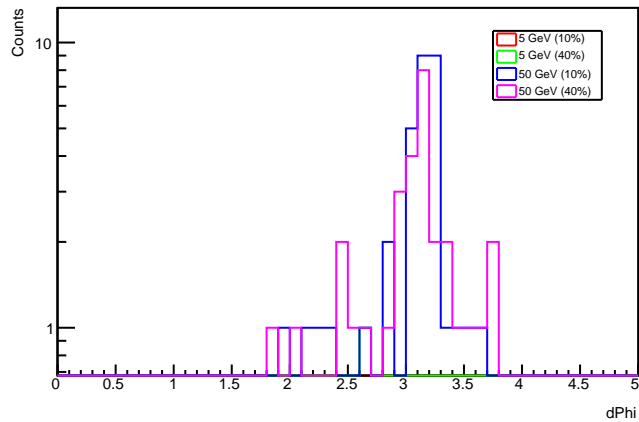
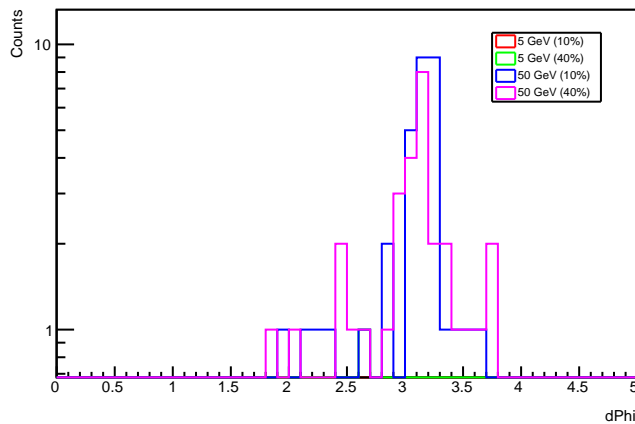
dPhi: reco leading mu and subleading mu: at least 2 mu w/ $p_{\text{T}} > 2$ GeV and $\eta < 2.5$



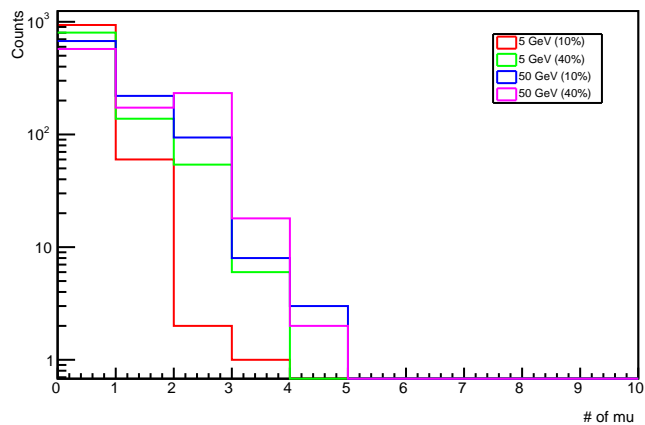
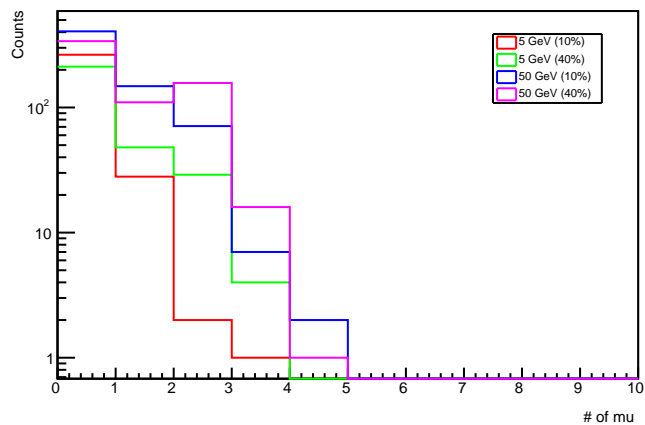
dPhi: reco MET and leading jet: no cuts

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

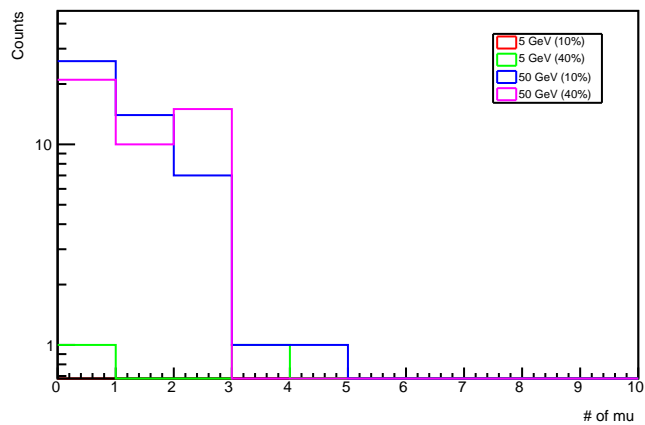
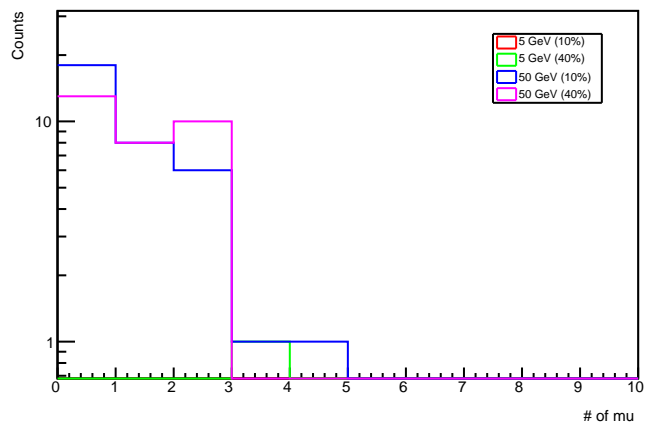
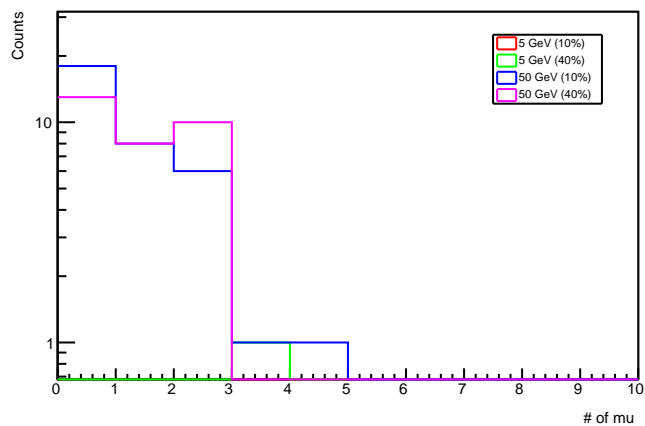
dPhi: reco MET and leading jet: MET > 120 GeV

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 $\eta < 2.5$ 

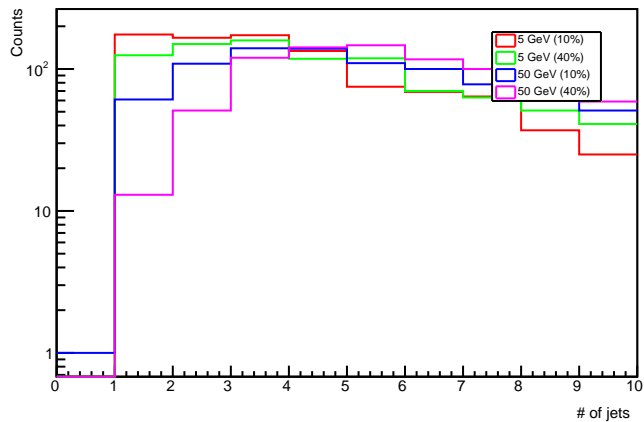
reco number of mu: no cuts

reco number of mu: $n_{\text{jet}} \geq 1$, $j_{1\text{pt}} > 30$ GeV

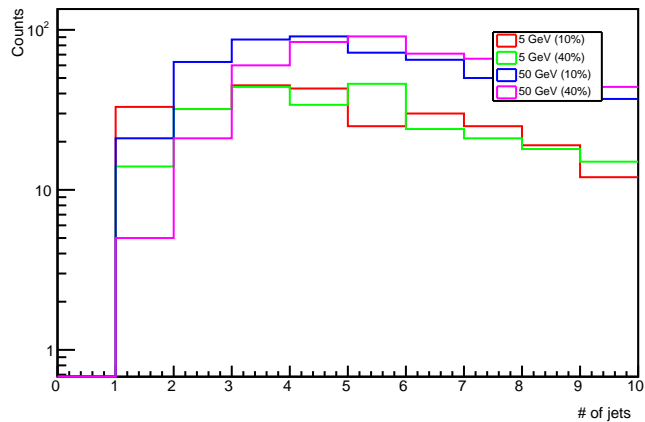
reco number of mu: MET > 120 GeV

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

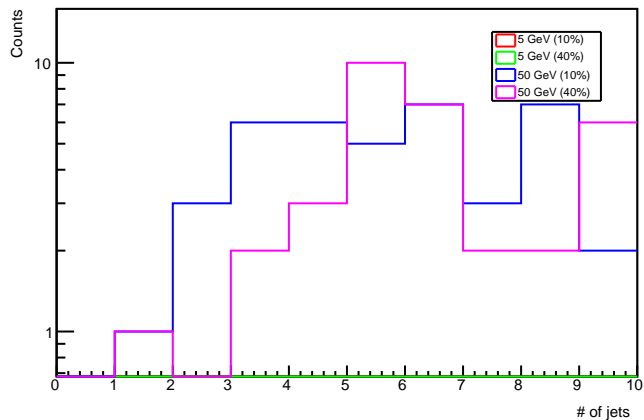
reco number of jets: no cuts



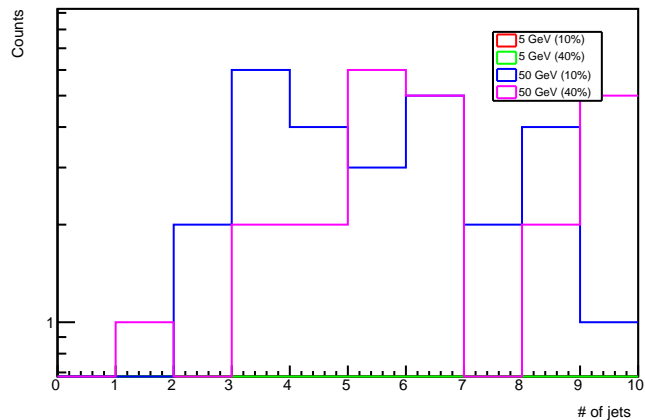
reco number of jets: $n_{\text{jet}} \geq 1$, $j_{1\text{pt}} > 30$ GeV



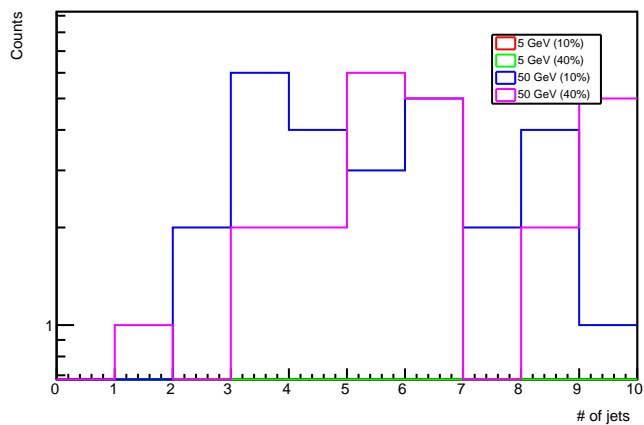
reco number of jets: $\text{MET} > 120$ GeV



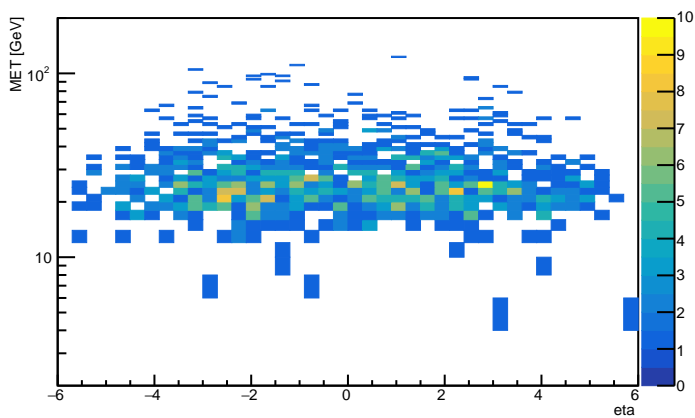
reco number of jets: $j_{1\text{pt}} > 120$, at most 2 jets w/ $p_t > 30$ GeV



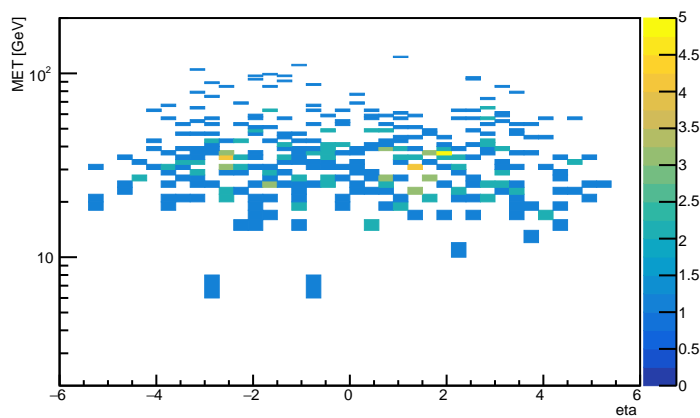
reco number of jets: at least 2 mu w/ $p_t > 2$ GeV and $\eta < 2.5$



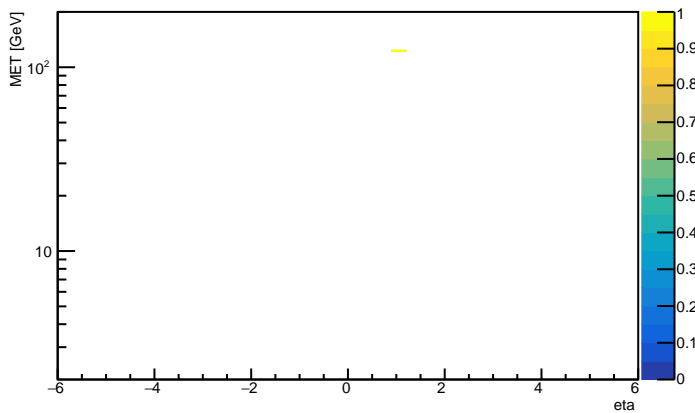
5 GeV (10%) ctau 0p1cm gen leading Met eta vs pt: no cuts



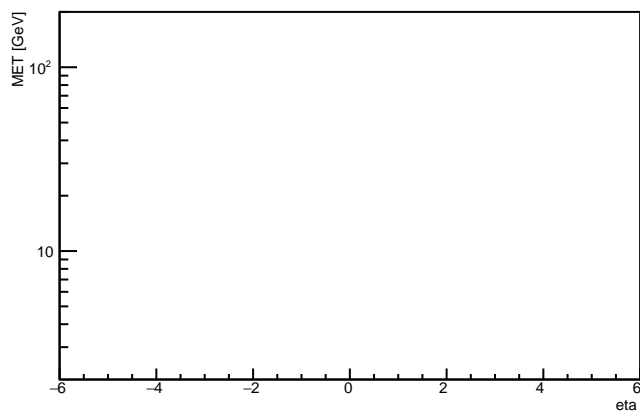
5 GeV (10%) ctau 0p1cm gen leading Met eta vs pt: n_jet >=1, j1pt > 30 GeV



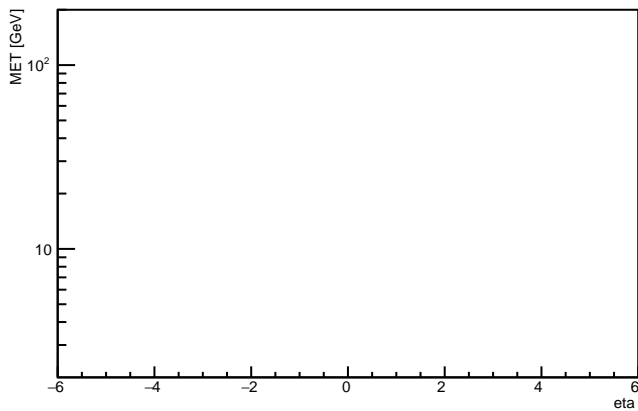
5 GeV (10%) ctau 0p1cm gen leading Met eta vs pt: MET > 120 GeV



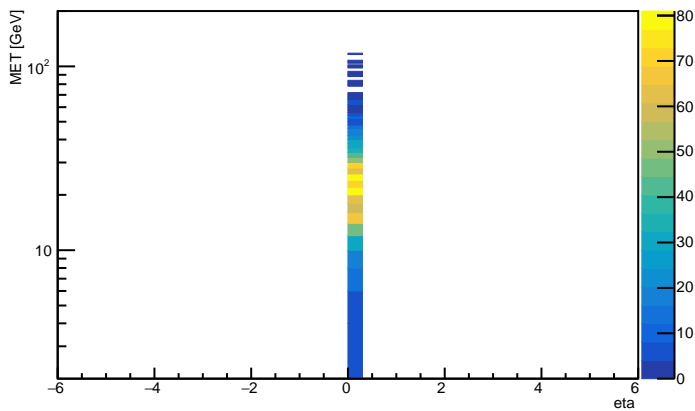
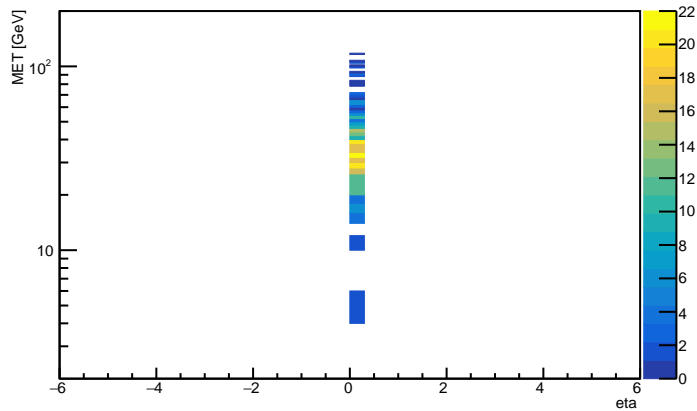
5 GeV (10%) ctau 0p1cm gen leading Met eta vs pt: j1pt >120, at most 2 jets w/ pt >30 GeV



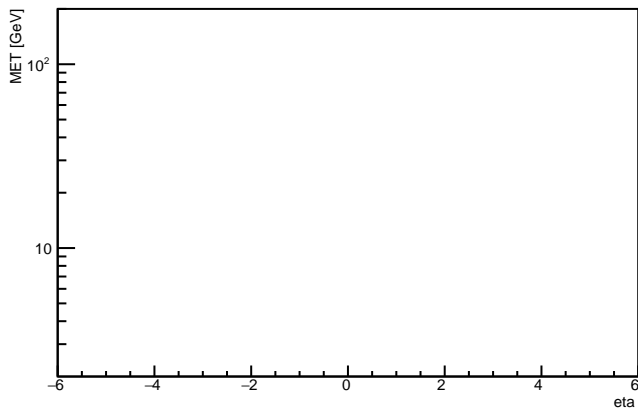
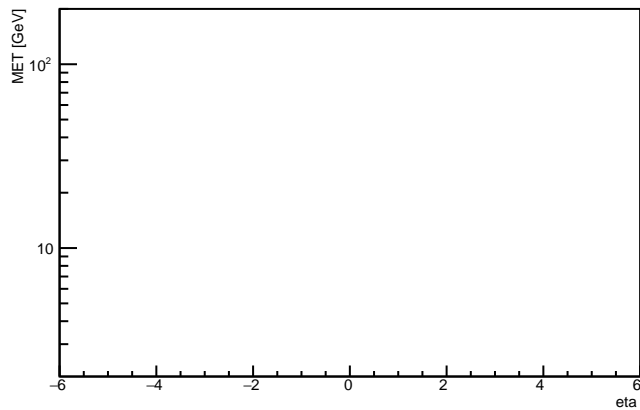
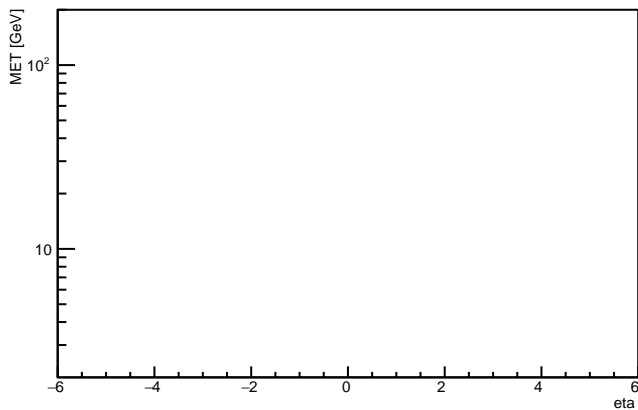
5 GeV (10%) ctau 0p1cm gen leading Met eta vs pt: at least 2 mu w/ pt > 2 GeV and eta<2.5



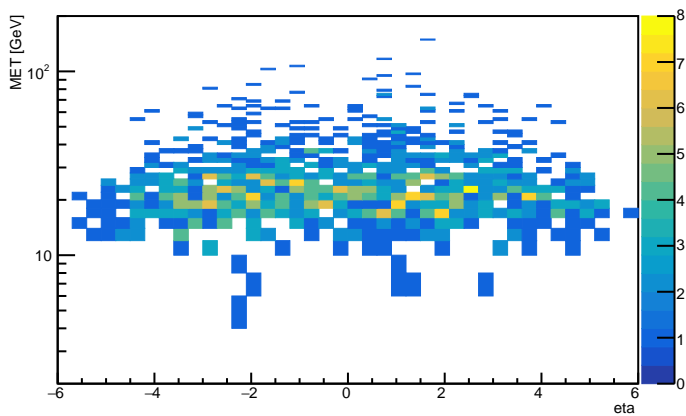
5 GeV (10%) ctau 0p1cm reco leading Met eta vs pt: no cuts

5 GeV (10%) ctau 0p1cm reco leading Met eta vs pt: $n_{\text{jet}} \geq 1$, $j_1 \text{pt} > 30 \text{ GeV}$ 

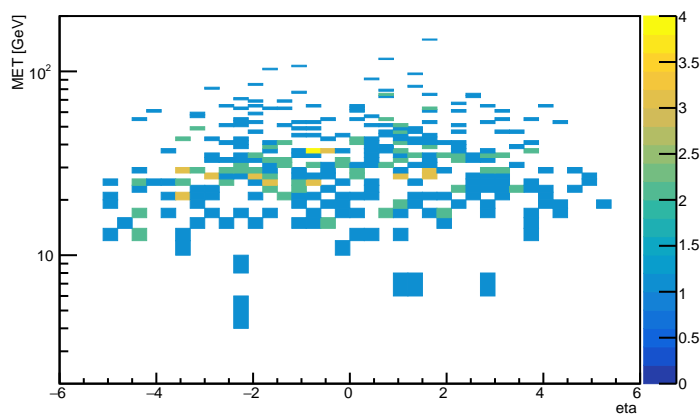
5 GeV (10%) ctau 0p1cm reco leading Met eta vs pt: MET > 120 GeV

5 GeV (10%) ctau 0p1cm reco leading Met eta vs pt: $j_1 \text{pt} > 120$, at most 2 jets w/ $\text{pt} > 30 \text{ GeV}$ 5 GeV (10%) ctau 0p1cm reco leading Met eta vs pt: at least 2 mu w/ $\text{pt} > 2 \text{ GeV}$ and $\text{eta} < 2.5$ 

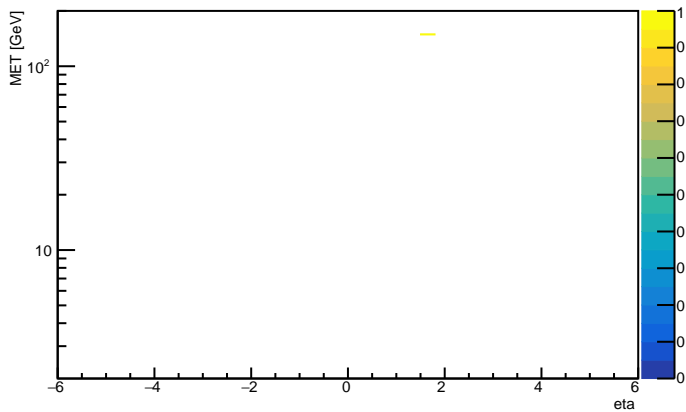
5 GeV (40%) ctau 0p1cm gen leading Met eta vs pt: no cuts



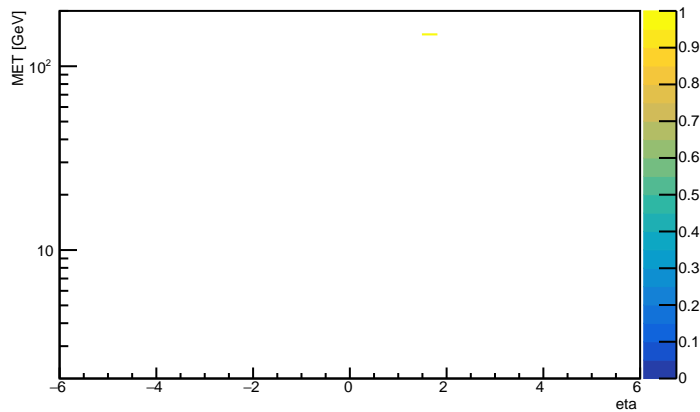
5 GeV (40%) ctau 0p1cm gen leading Met eta vs pt: n_jet >= 1, j1pt > 30 GeV



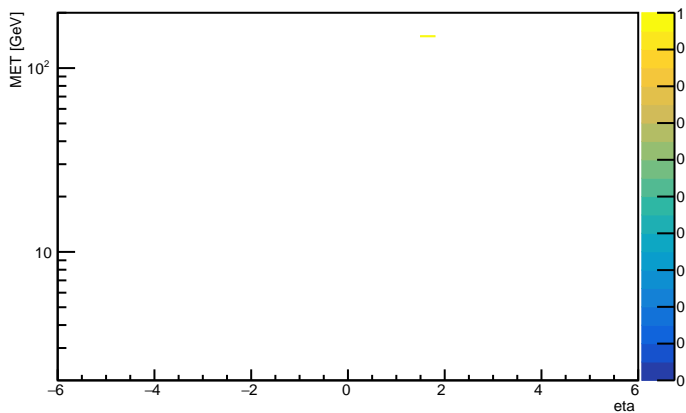
5 GeV (40%) ctau 0p1cm gen leading Met eta vs pt: MET > 120 GeV



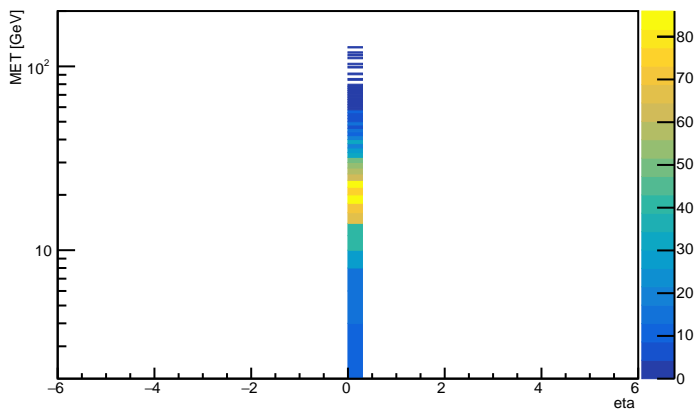
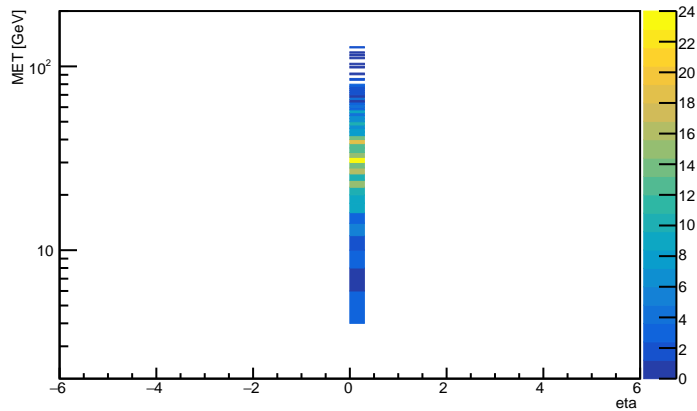
5 GeV (40%) ctau 0p1cm gen leading Met eta vs pt: j1pt > 120, at most 2 jets w/ pt > 30 GeV



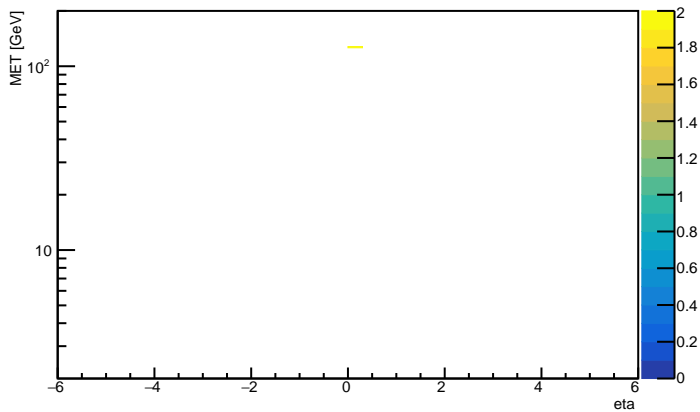
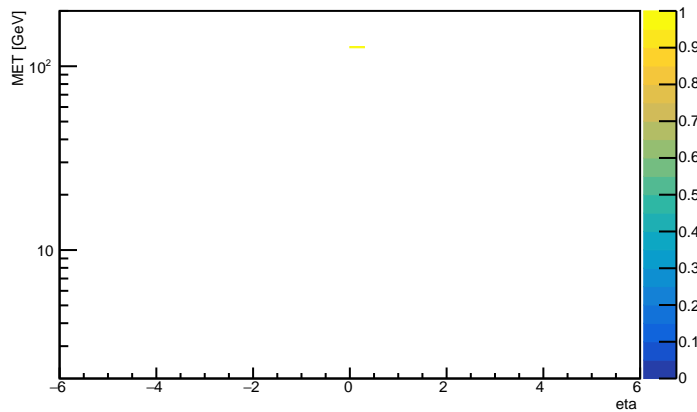
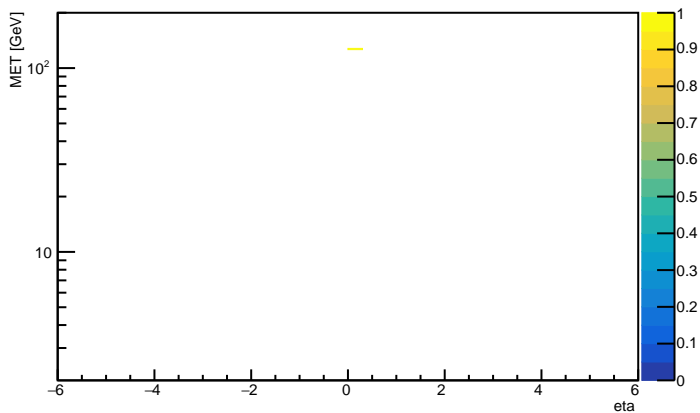
5 GeV (40%) ctau 0p1cm gen leading Met eta vs pt: at least 2 mu w/ pt > 2 GeV and eta < 2.5



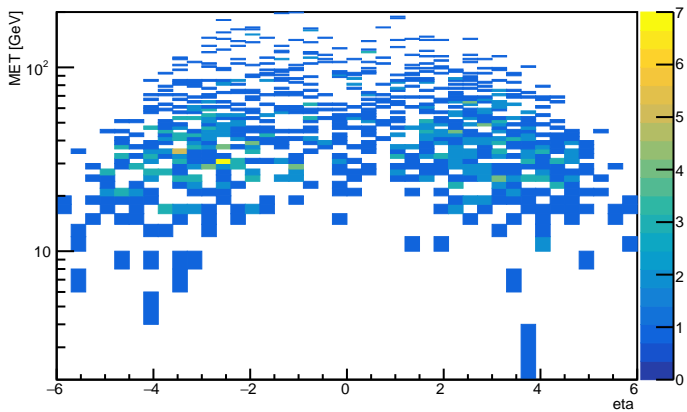
5 GeV (40%) cttau 0p1cm reco leading Met eta vs pt: no cuts

5 GeV (40%) cttau 0p1cm reco leading Met eta vs pt: $n_{\text{jet}} \geq 1$, $j1pt > 30$ GeV

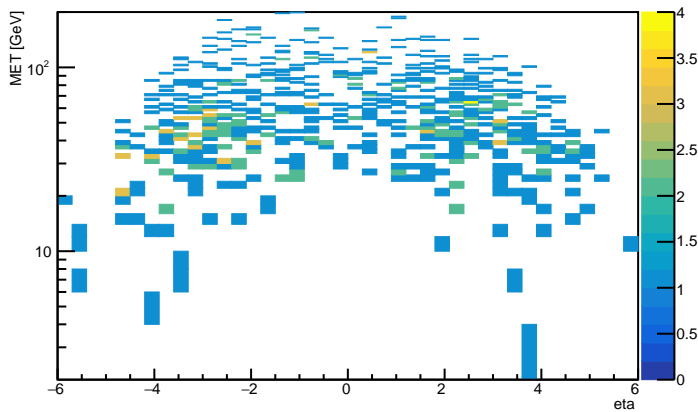
5 GeV (40%) cttau 0p1cm reco leading Met eta vs pt: MET > 120 GeV

5 GeV (40%) cttau 0p1cm reco leading Met eta vs pt: $j1pt > 120$, at most 2 jets w/ $pt > 30$ GeV5 GeV (40%) cttau 0p1cm reco leading Met eta vs pt: at least 2 mu w/ $pt > 2$ GeV and $eta < 2.5$ 

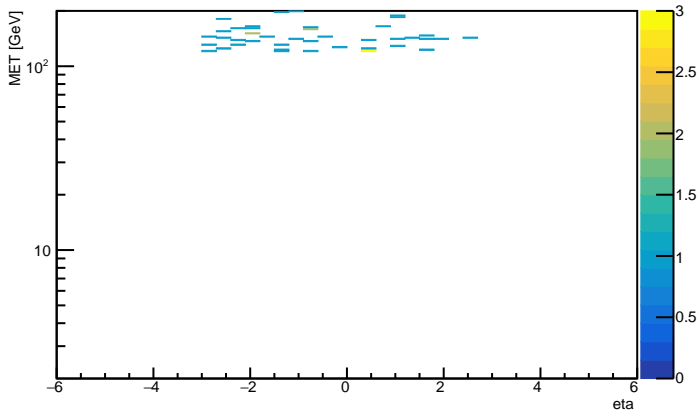
50 GeV (10%) ctau 0p1cm gen leading Met eta vs pt: no cuts



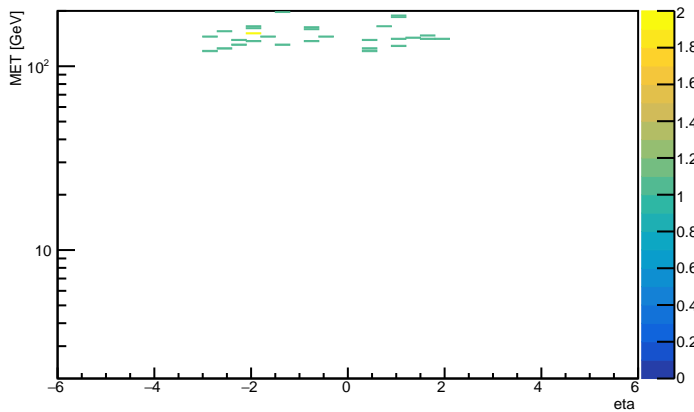
50 GeV (10%) ctau 0p1cm gen leading Met eta vs pt: $n_{\text{jet}} \geq 1$, $j1pt > 30$ GeV



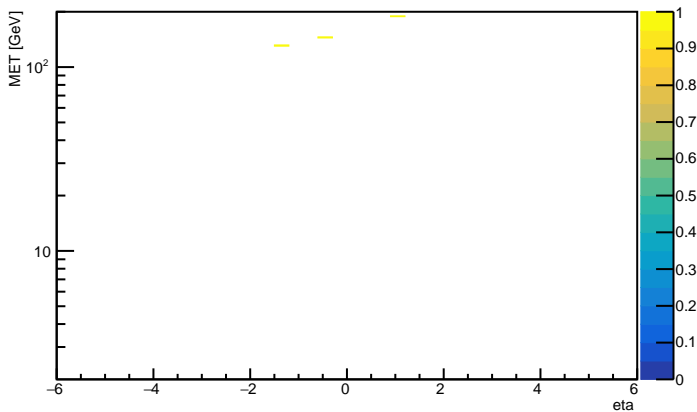
50 GeV (10%) ctau 0p1cm gen leading Met eta vs pt: MET > 120 GeV



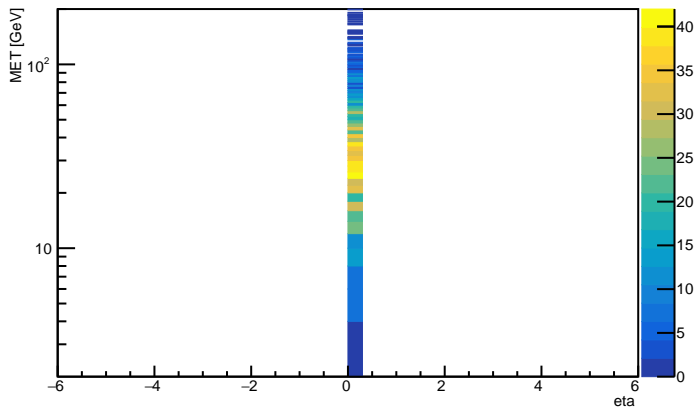
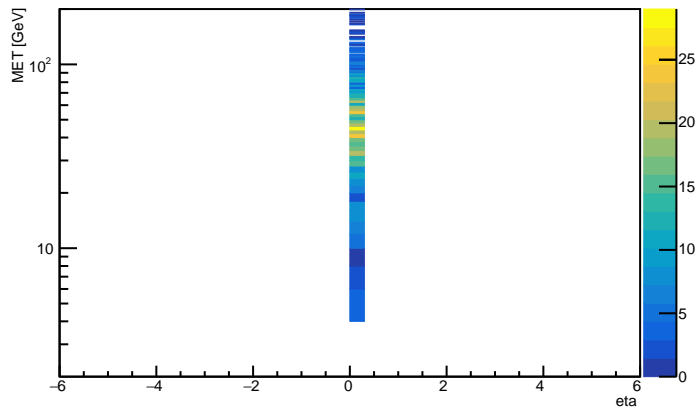
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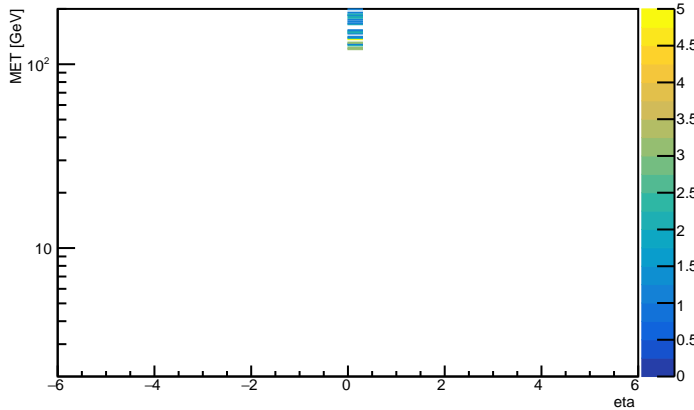
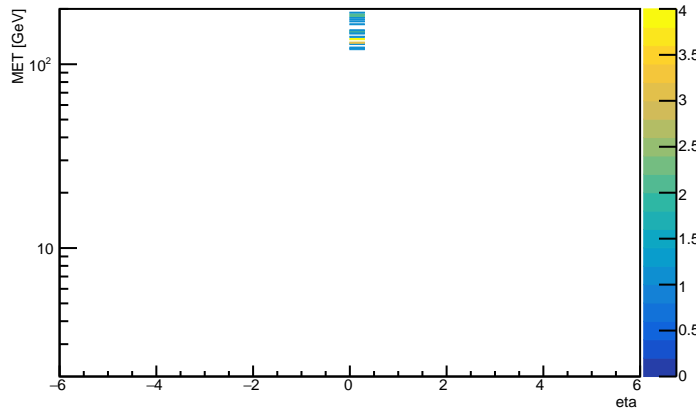
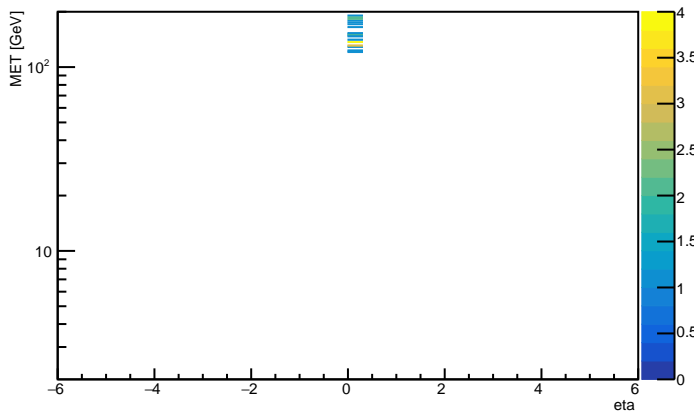
50 GeV (10%) ctau 0p1cm gen leading Met eta vs pt: at least 2 mu w/ $pt > 2$ GeV and $eta < 2.5$



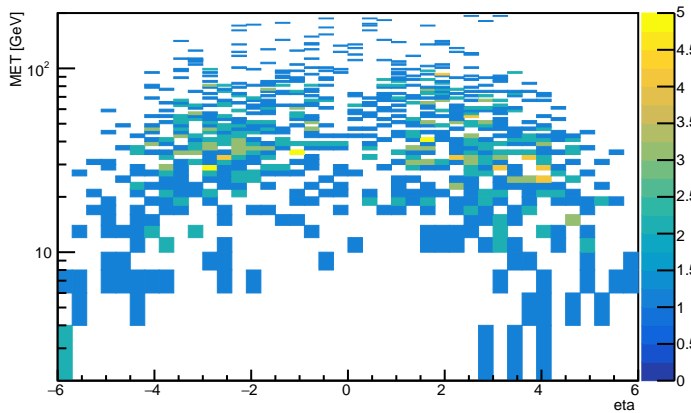
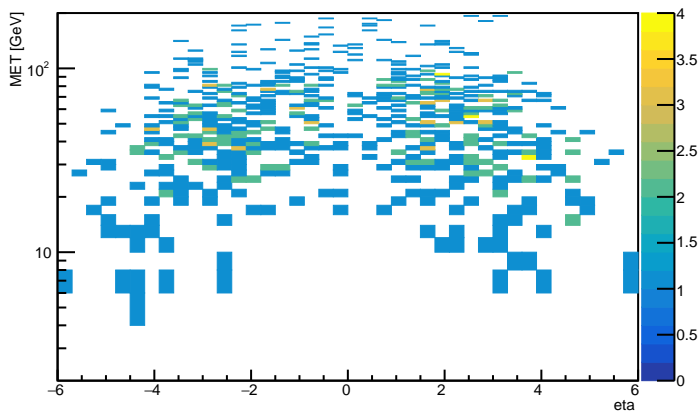
50 GeV (10%) ctau 0p1cm reco leading Met eta vs pt: no cuts

50 GeV (10%) ctau 0p1cm reco leading Met eta vs pt: $n_{\text{jet}} \geq 1$, $j_{1\text{pt}} > 30$ GeV

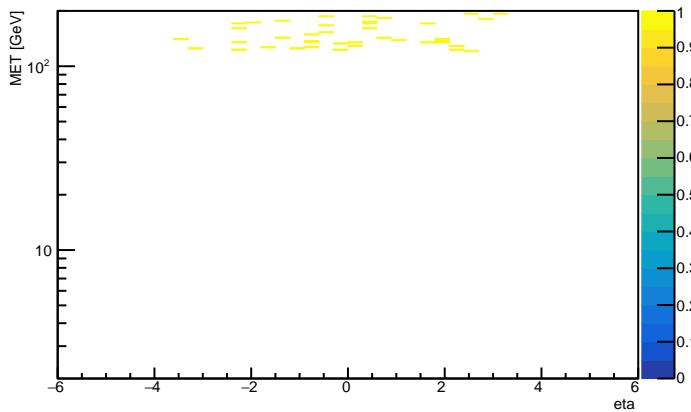
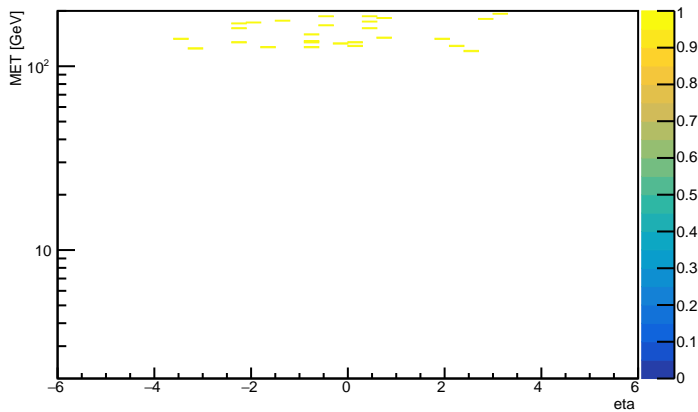
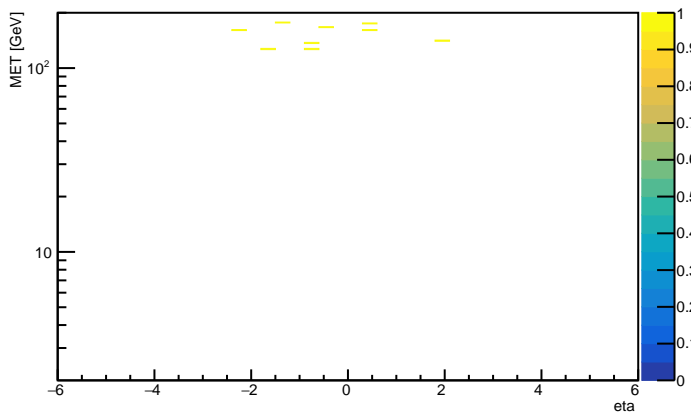
50 GeV (10%) ctau 0p1cm reco leading Met eta vs pt: MET > 120 GeV

50 GeV (10%) ctau 0p1cm reco leading Met eta vs pt: $j_{1\text{pt}} > 120$, at most 2 jets w/ $p_t > 30$ GeV50 GeV (10%) ctau 0p1cm reco leading Met eta vs pt: at least 2 mu w/ $p_t > 2$ GeV and $|\eta| < 2.5$ 

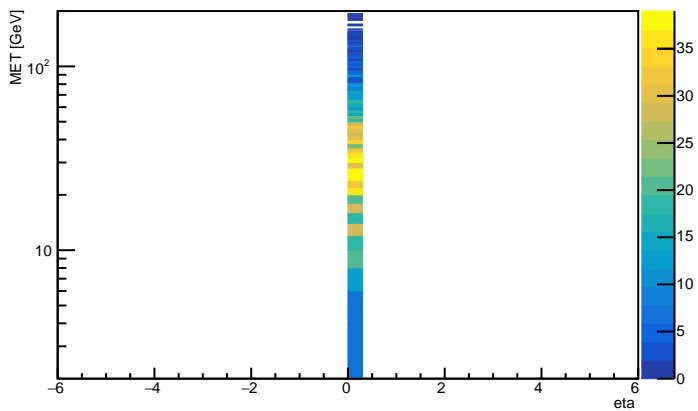
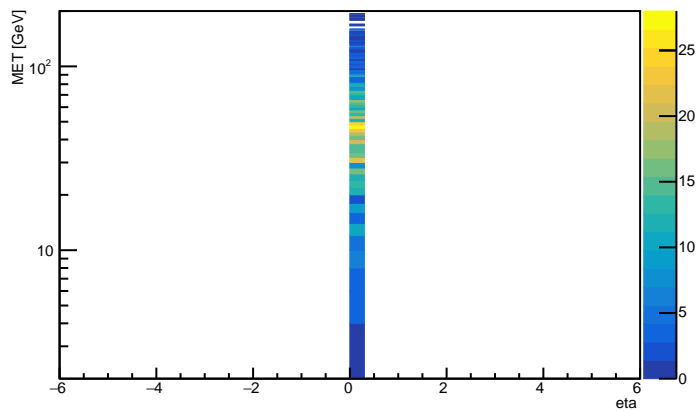
50 GeV (40%) ctau 0p1cm gen leading Met eta vs pt: no cuts

50 GeV (40%) ctau 0p1cm gen leading Met eta vs pt: $n_{\text{jet}} \geq 1$, $j_1 \text{ pt} > 30 \text{ GeV}$ 

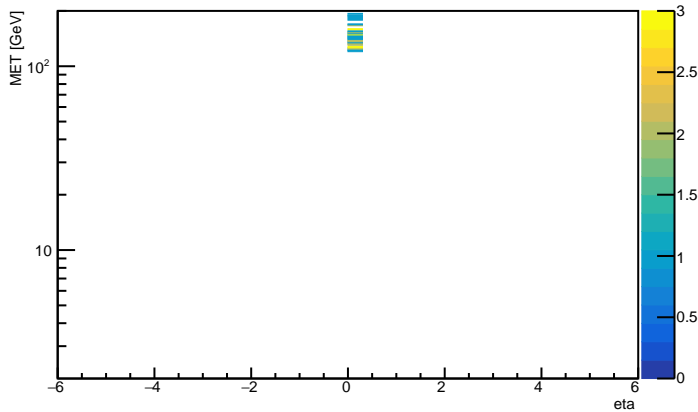
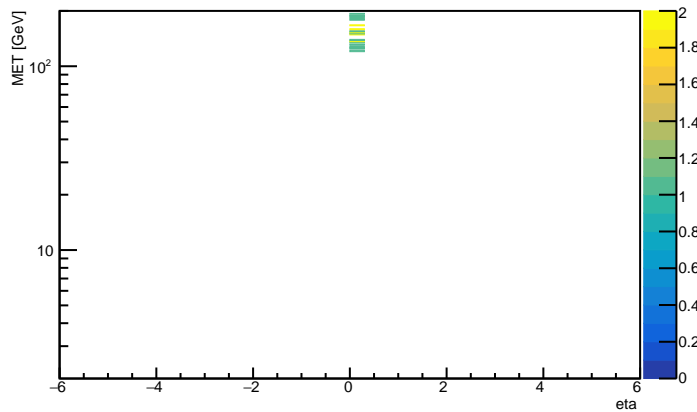
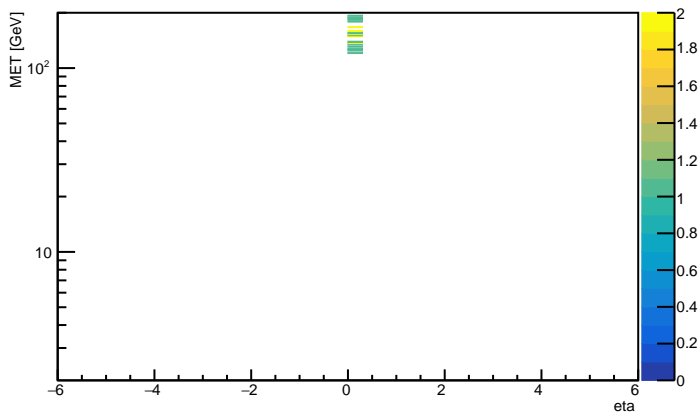
50 GeV (40%) ctau 0p1cm gen leading Met eta vs pt: MET > 120 GeV

50 GeV (40%) ctau 0p1cm gen leading Met eta vs pt: $j_1 \text{ pt} > 120$, at most 2 jets w/ $\text{pt} > 30 \text{ GeV}$ 50 GeV (40%) ctau 0p1cm gen leading Met eta vs pt: at least 2 mu w/ $\text{pt} > 2 \text{ GeV}$ and $\text{eta} < 2.5$ 

50 GeV (40%) ctau 0p1cm reco leading Met eta vs pt: no cuts

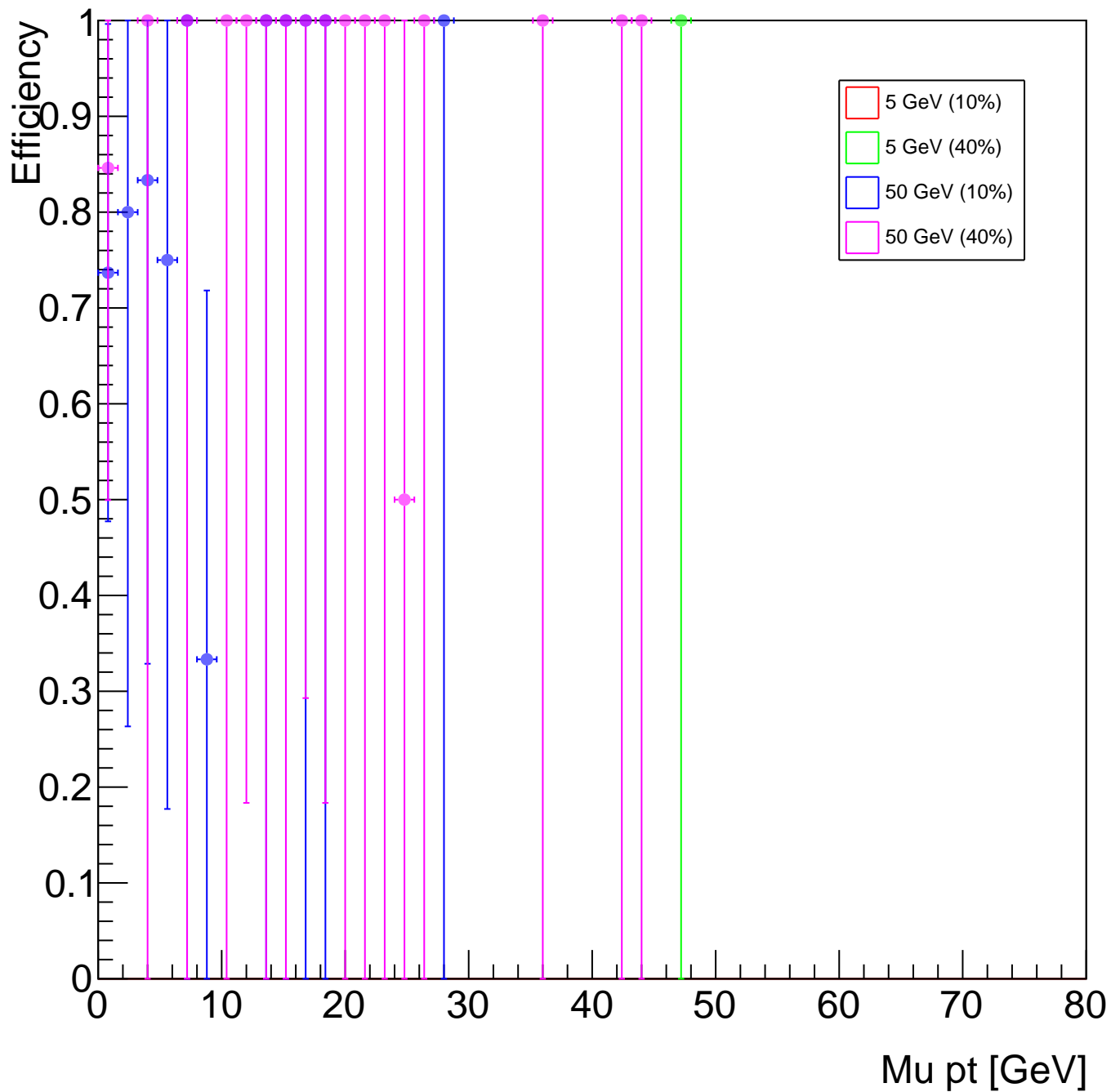
50 GeV (40%) ctau 0p1cm reco leading Met eta vs pt: $n_{\text{jet}} \geq 1, j_{1\text{pt}} > 30$ GeV

50 GeV (40%) ctau 0p1cm reco leading Met eta vs pt: MET > 120 GeV

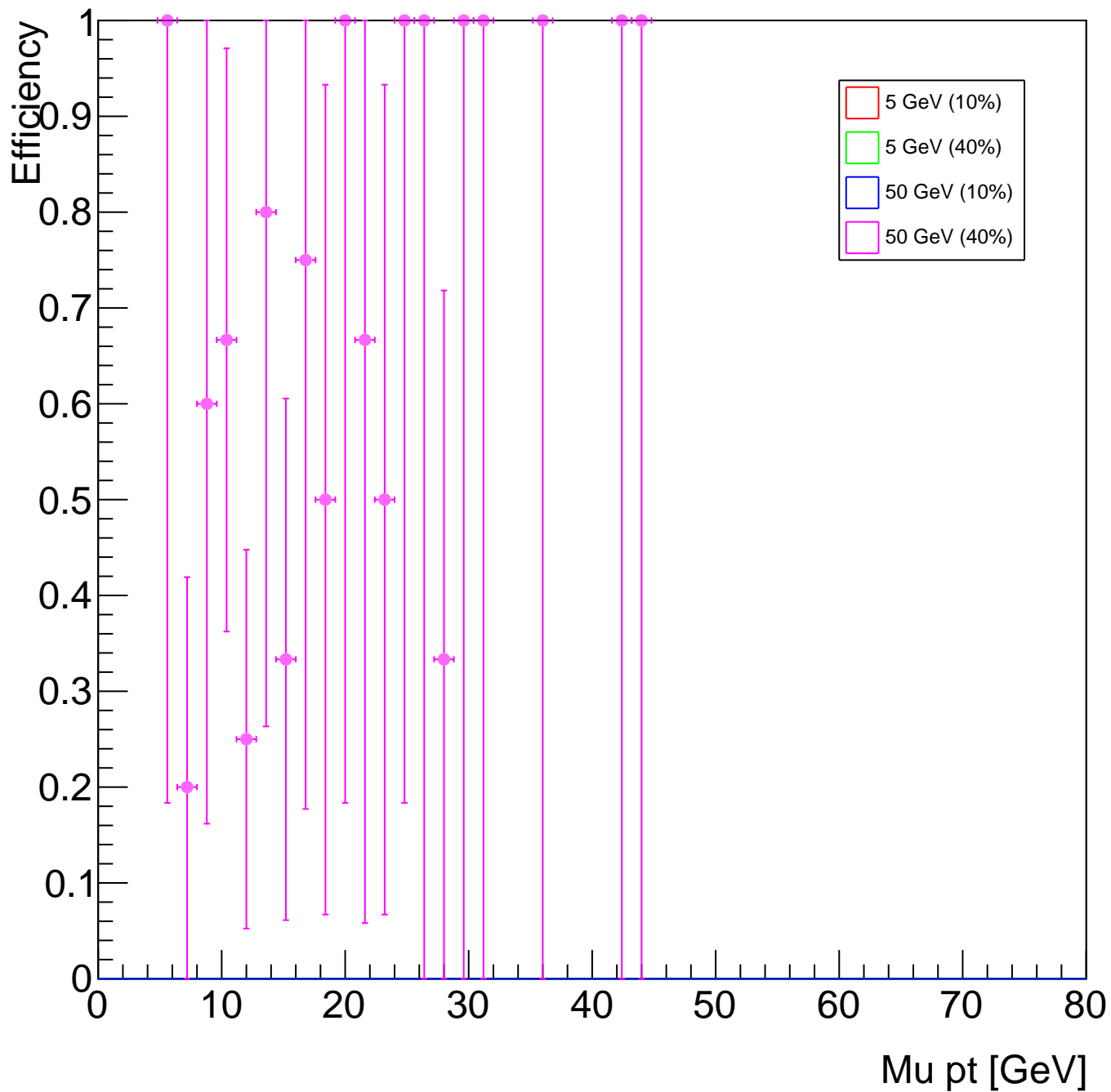
50 GeV (40%) ctau 0p1cm reco leading Met eta vs pt: $j_{1\text{pt}} > 120$, at most 2 jets w/ $p_{\text{T}} > 30$ GeV50 GeV (40%) ctau 0p1cm reco leading Met eta vs pt: at least 2 mu w/ $p_{\text{T}} > 2$ GeV and $|\eta| < 2.5$ 

efficiencies

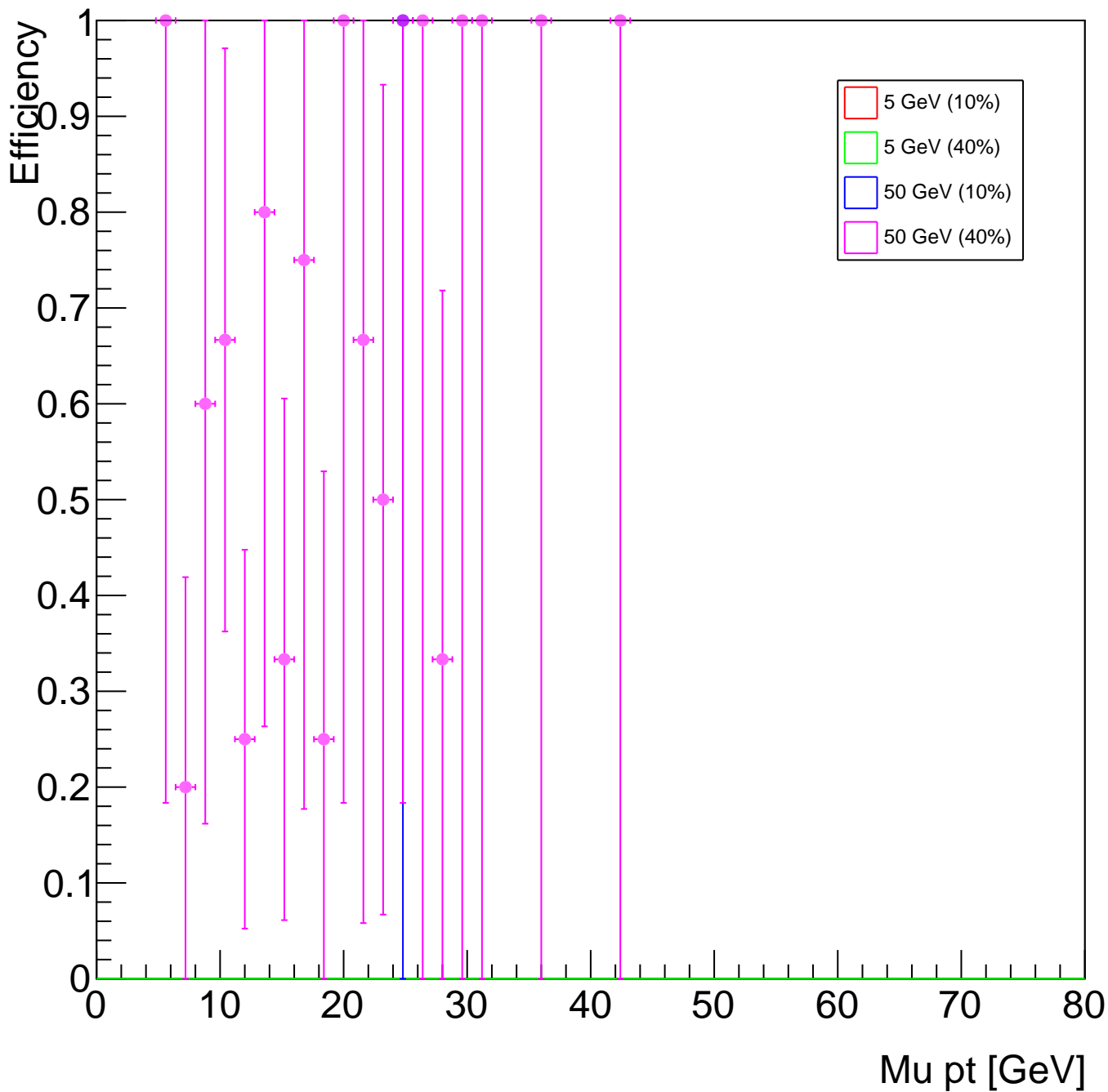
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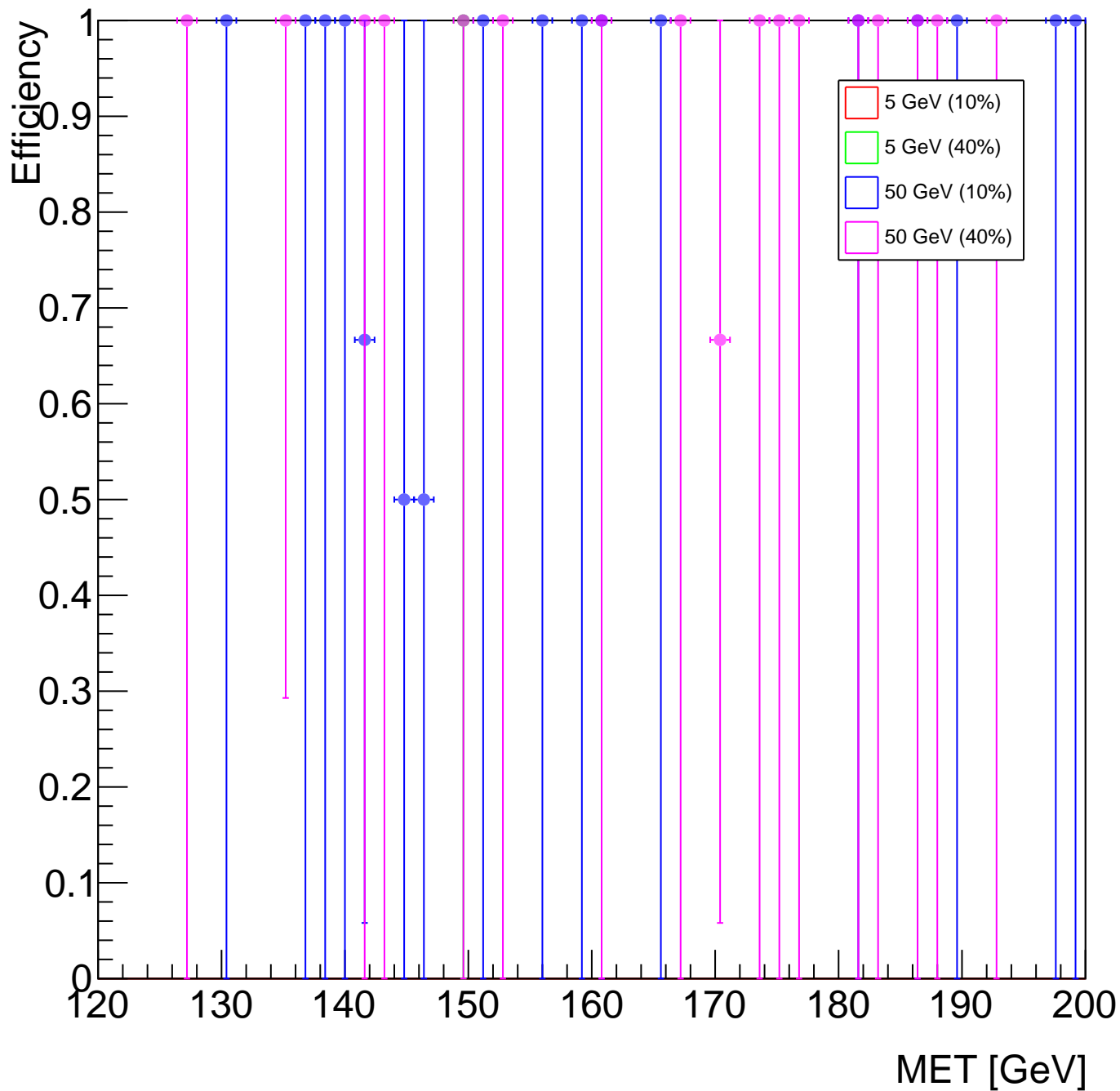
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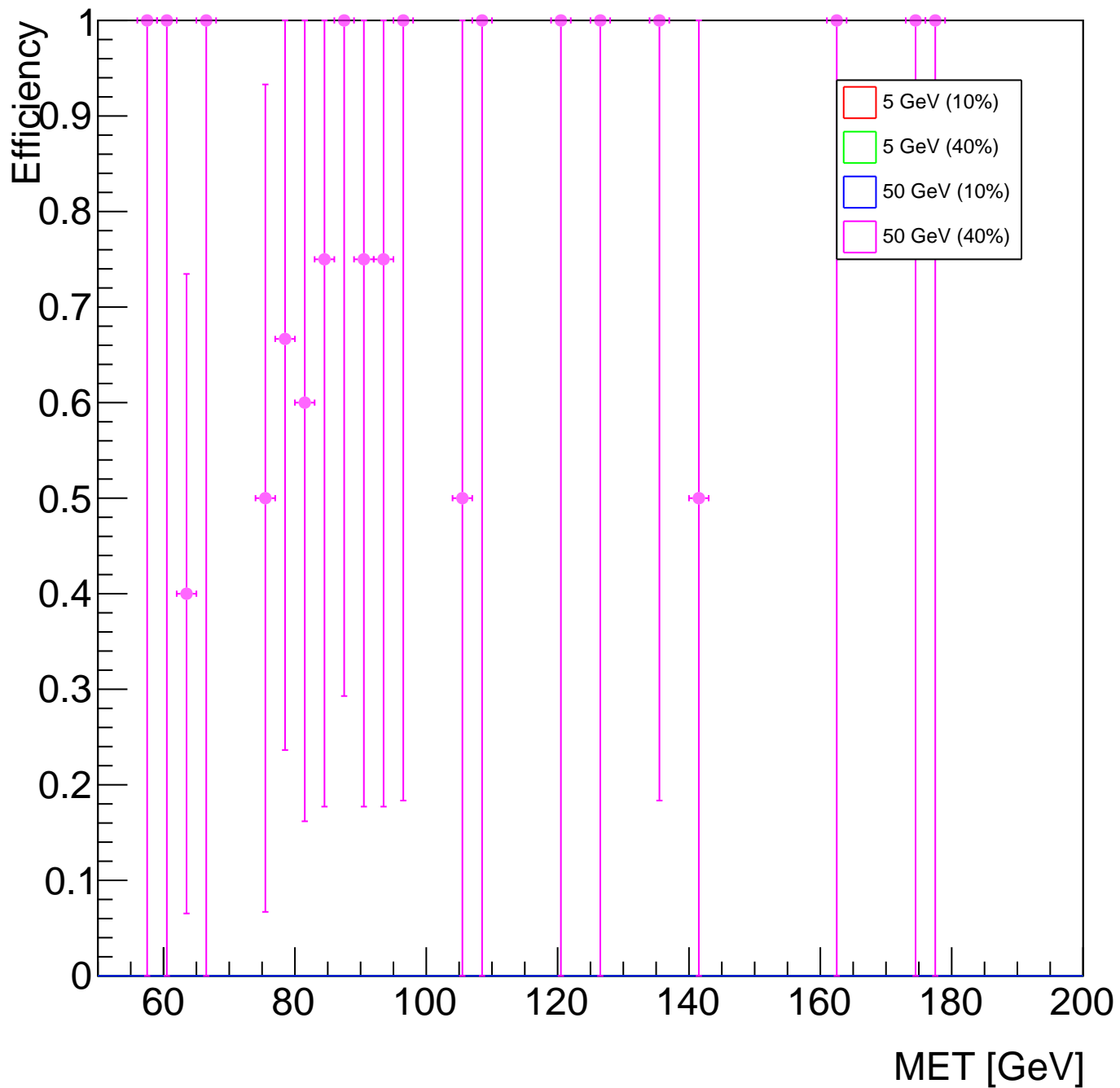
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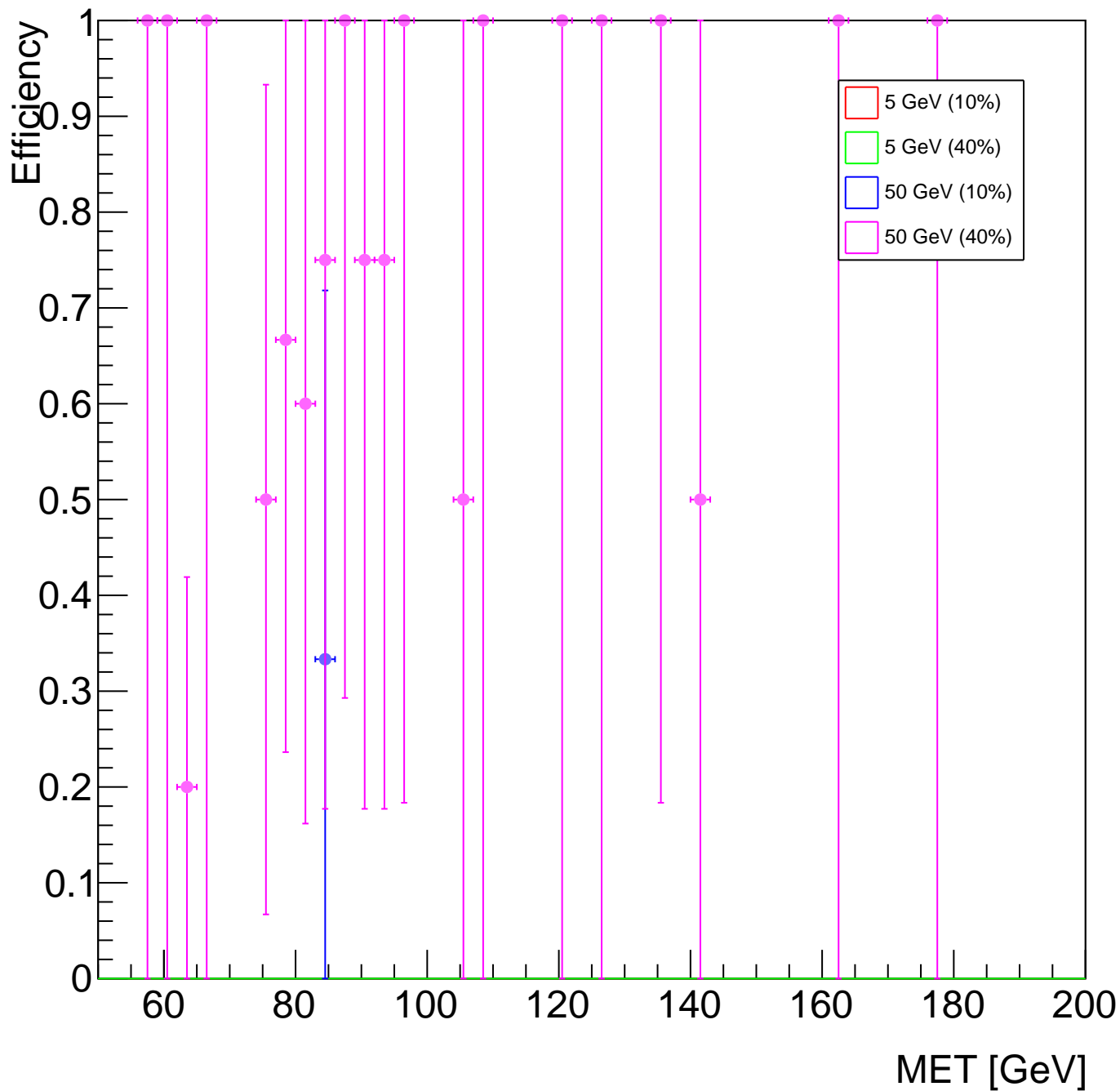
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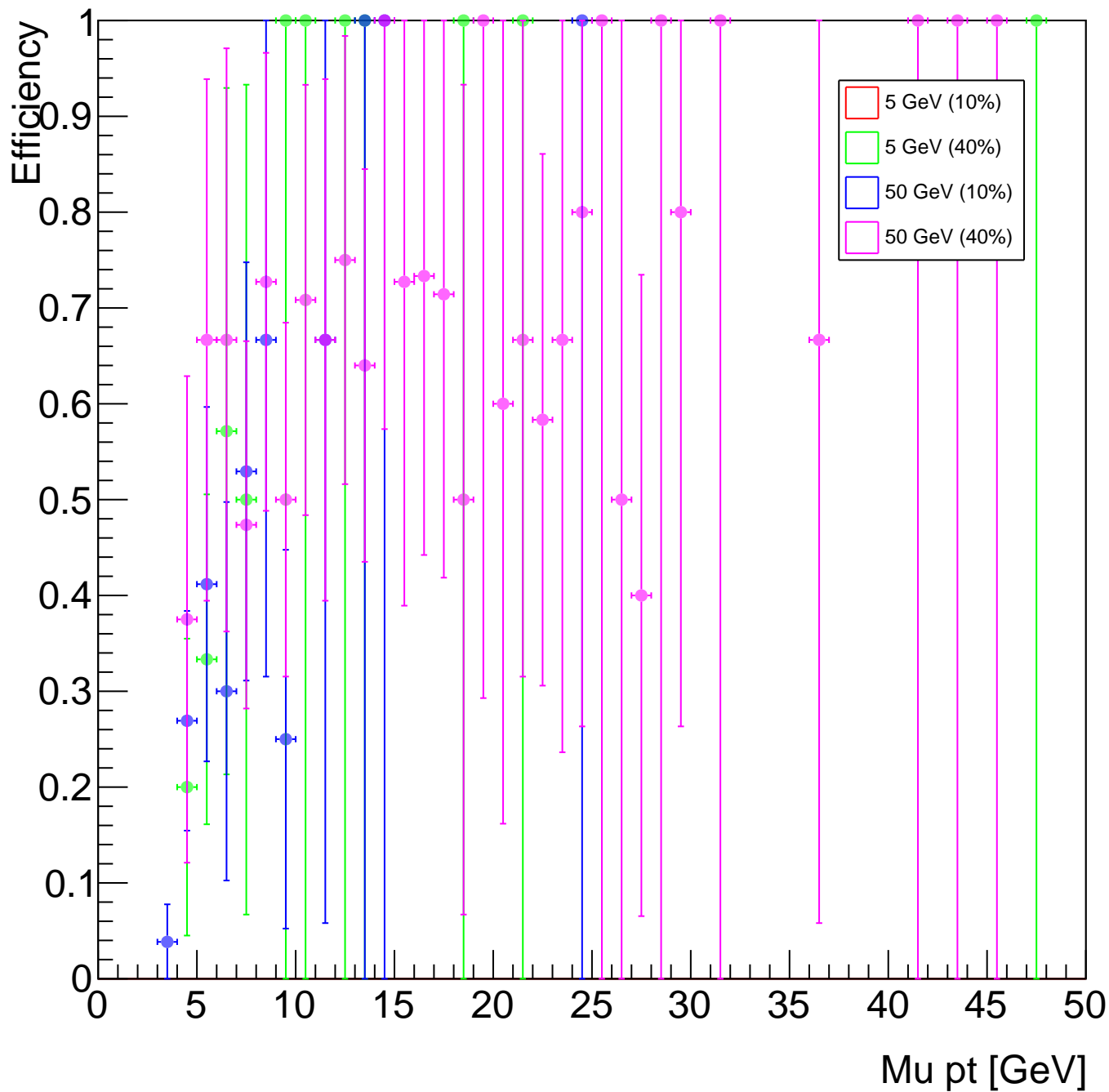
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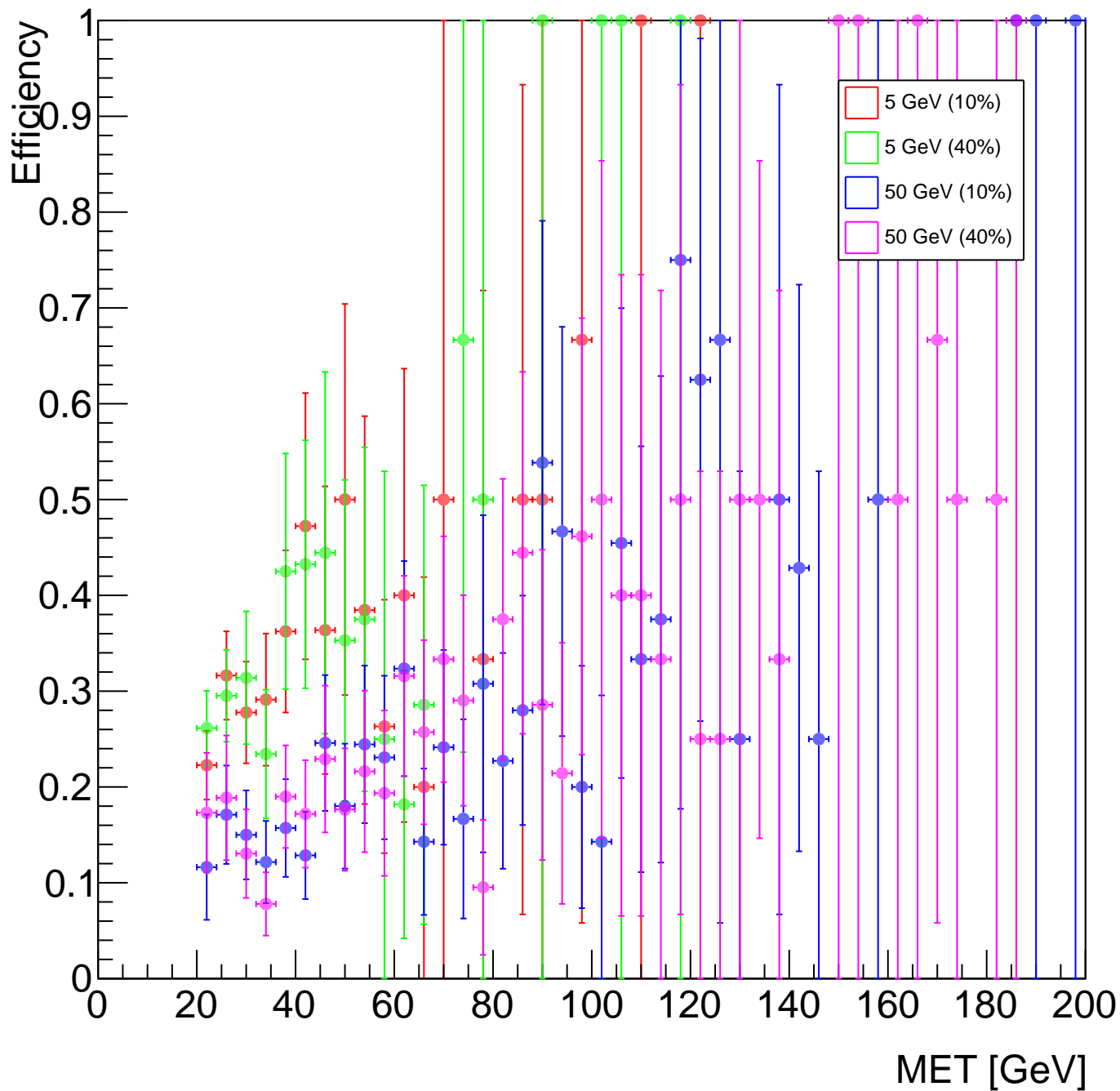
trigefficiency HLT_DoubleMu3_DZ_PFMET50_PFMHT60



recoefficiency mu



recoefficiency met



recoefficiency met

