Comparison with τ trigger & μ or τ trigger

W_R 1000 GeV-6500 GeV & N 100 GeV ~

2024.11.18

Signal Efficiency τ trigger vs μ *or* τ trigger

- Comparing using **only τ trigger** and using **both τ trigger μ trigger**

- > Using two trigger would select more datas, But efficiency would also be better?

Signal Efficiency τ trigger vs μ *or* τ trigger

- Comparing using **only τ trigger** and using **both τ trigger μ trigger**

- > Using Both two trigger would select more datas, But efficiency would also be better?

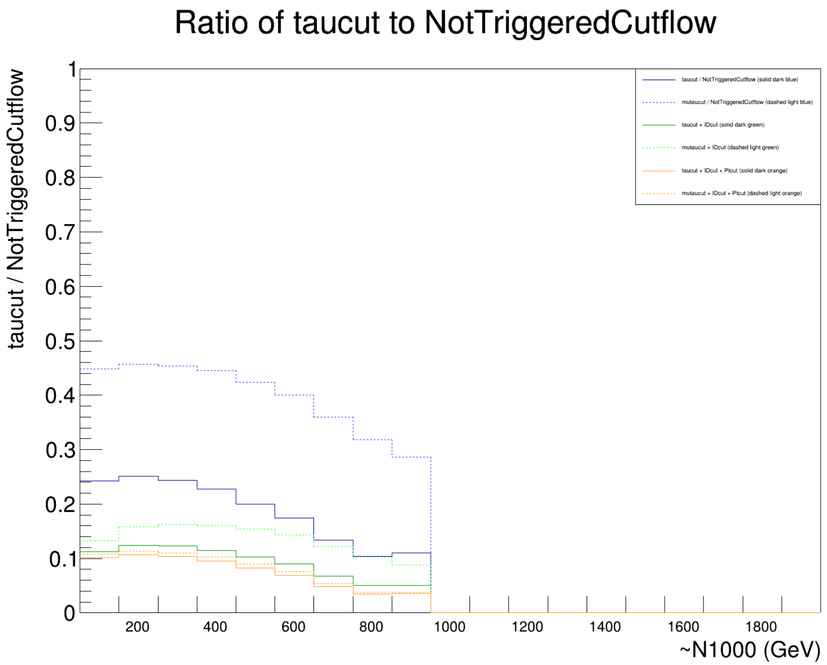
1. MET filter + Tau trigger	
2. Tau ID	- j_decaymode = 0 , 1 , 10 , 11 - DecayModeNewDM - delta z< 0.2 - passTIDvJet , passTIDvMu , passTIDvEl - eta < 2.1
3. Pt cut	- Pt> 190 GeV

1. MET filter + (Tau trigger + Muon trigger)	
2. Tau ID	- j_decaymode = 0 , 1 , 10 , 11 - DecayModeNewDM - delta z< 0.2 - passTIDvJet , passTIDvMu , passTIDvEl - eta < 2.1
3.Pt cut	- Pt> 190 GeV

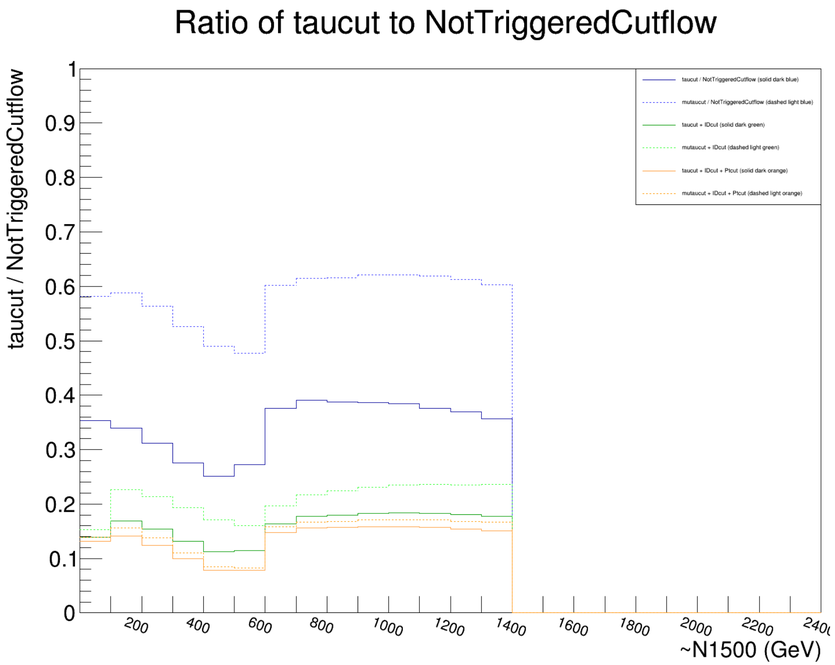
μ or τ trigger & τ trigger

(P_T + τID +τ trigger + MET filter) / MET filter

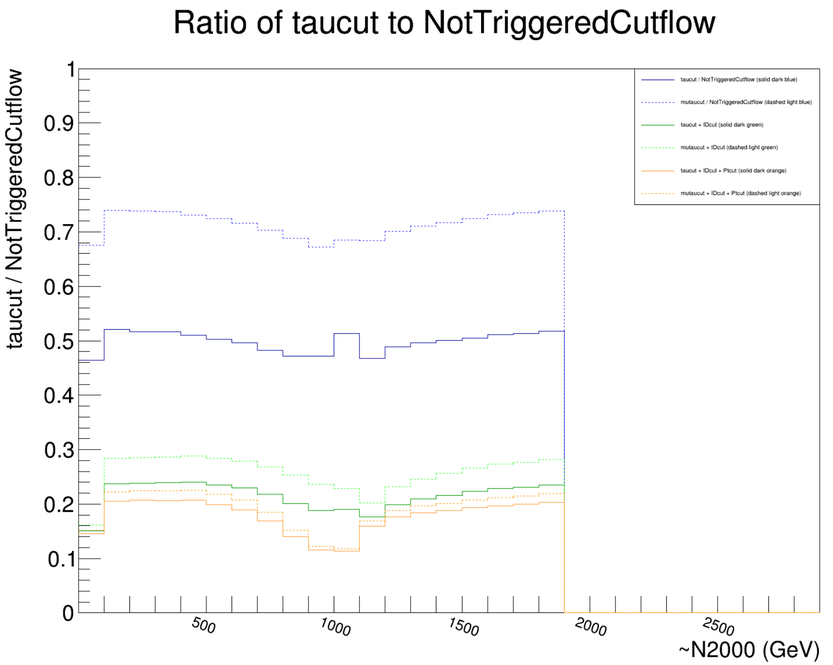
(P_T + τID + τ trigger or μtrigger + MET filter) / MET filter



WR 1000



WR 1500



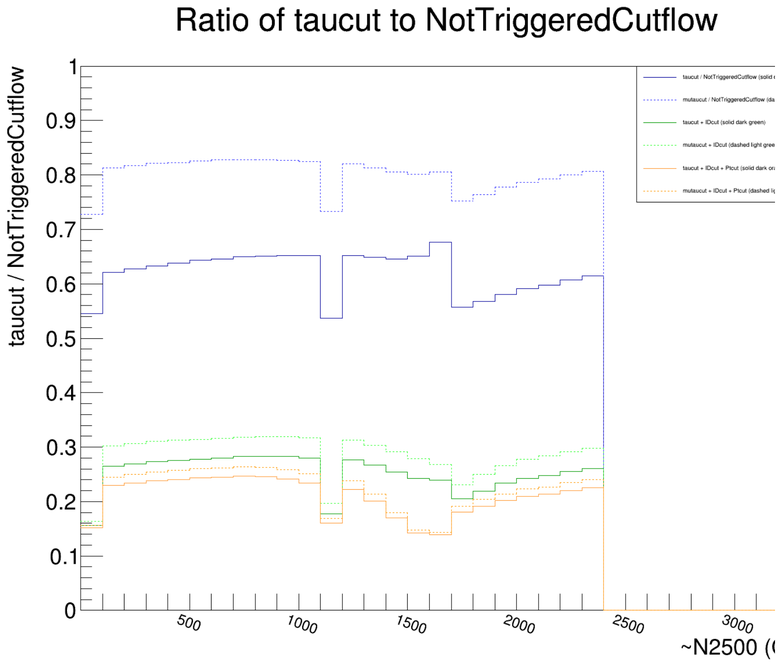
WR 2000

- W_R 1000 ~ 2000

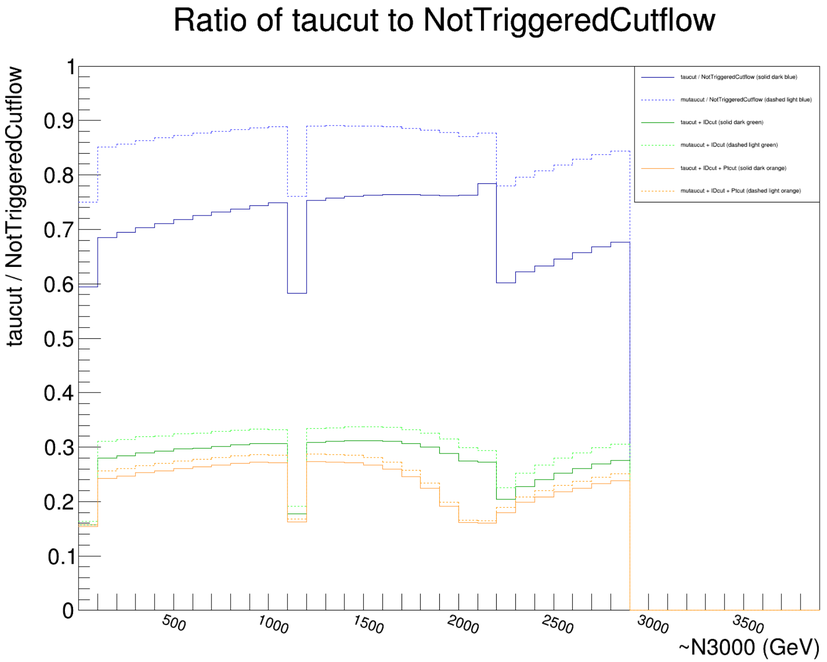
μ or τ trigger & τ trigger

(P_T + τID +τ trigger + MET filter) / MET filter

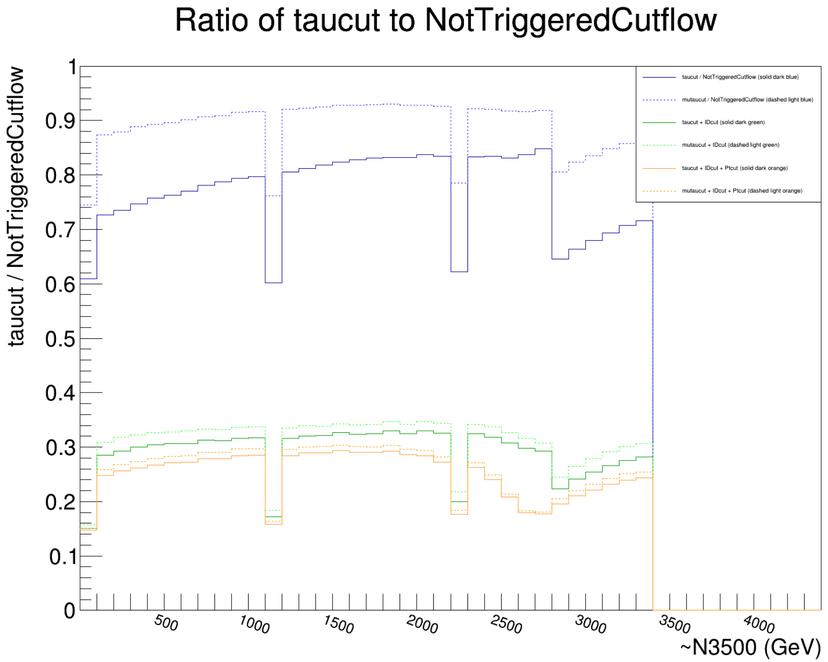
(P_T + τID + τ trigger or μtrigger + MET filter) / MET filter



WR 2500



WR 3000



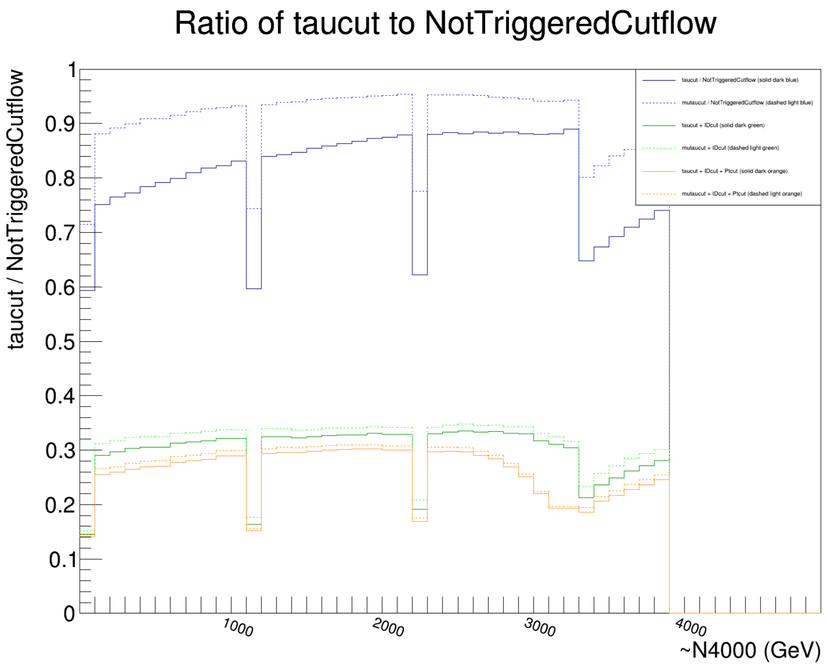
WR 3500

- W_R 2500 ~ 3500

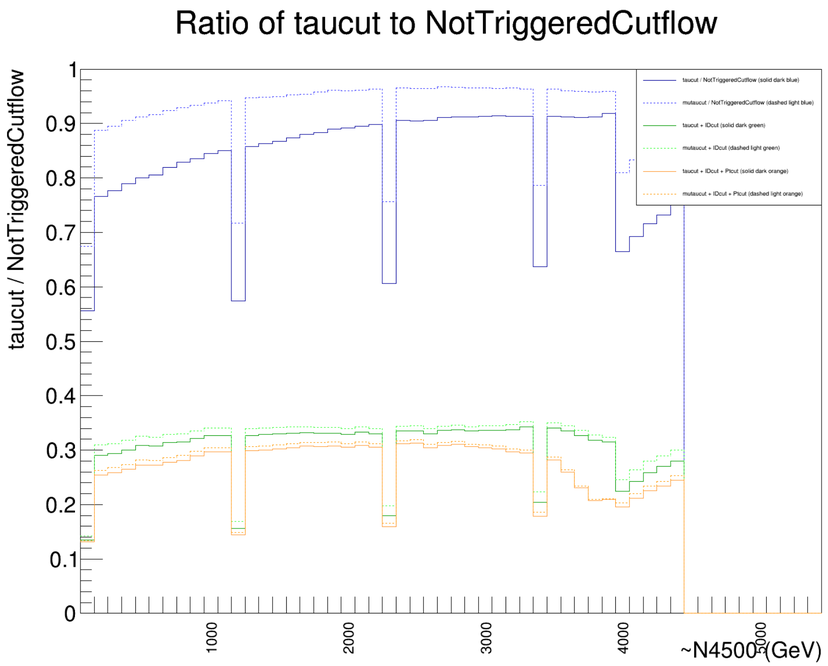
μ or τ trigger & τ trigger

(P_T + τID +τ trigger + MET filter) / MET filter

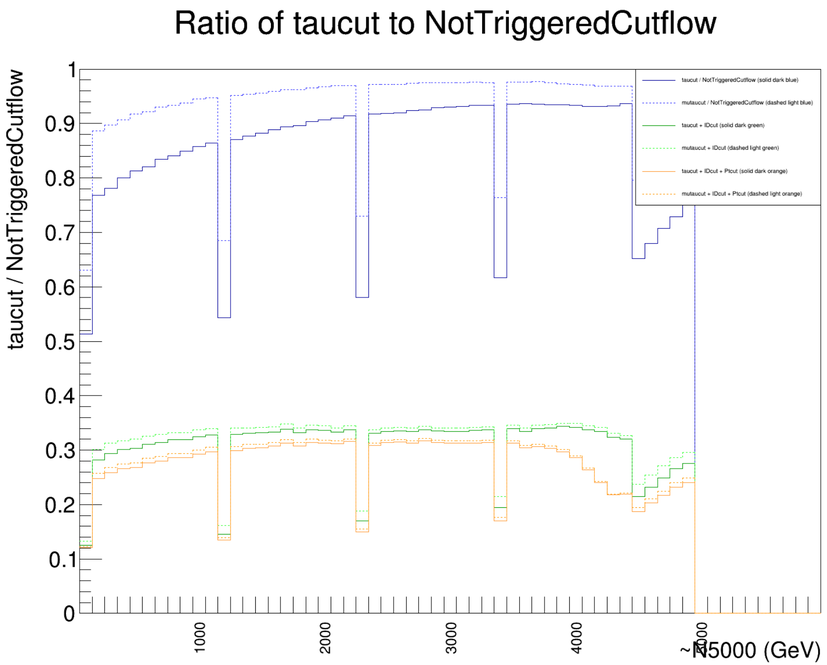
(P_T + τID + τ trigger or μtrigger + MET filter) / MET filter



WR 4000



WR 4500



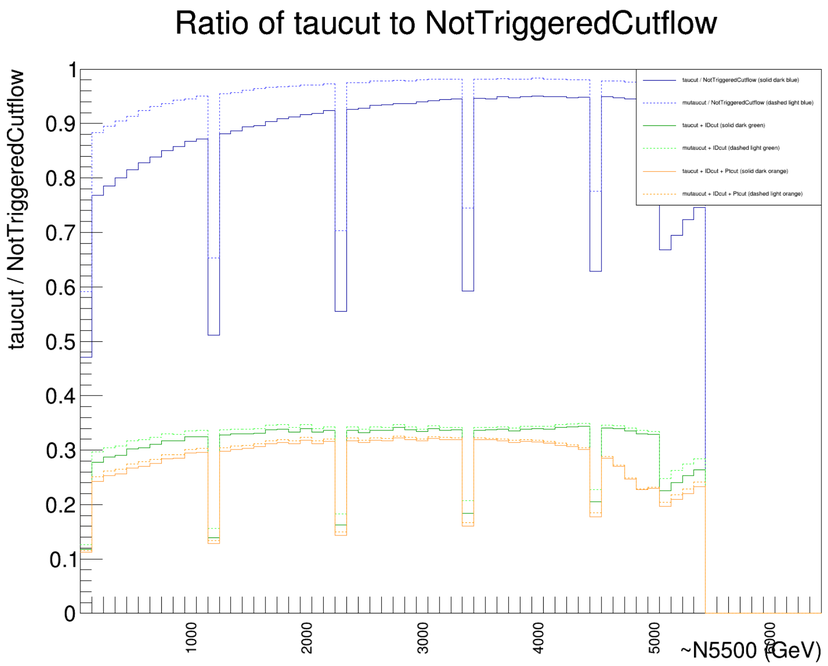
WR 5000

- W_R 4000~5000

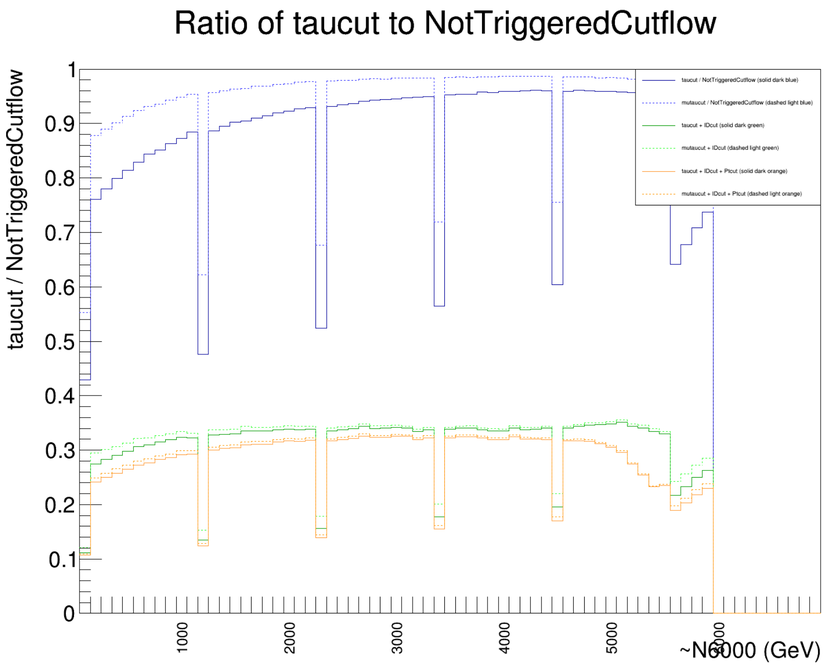
μ or τ trigger & τ trigger

(P_T + τID +τ trigger + MET filter) / MET filter

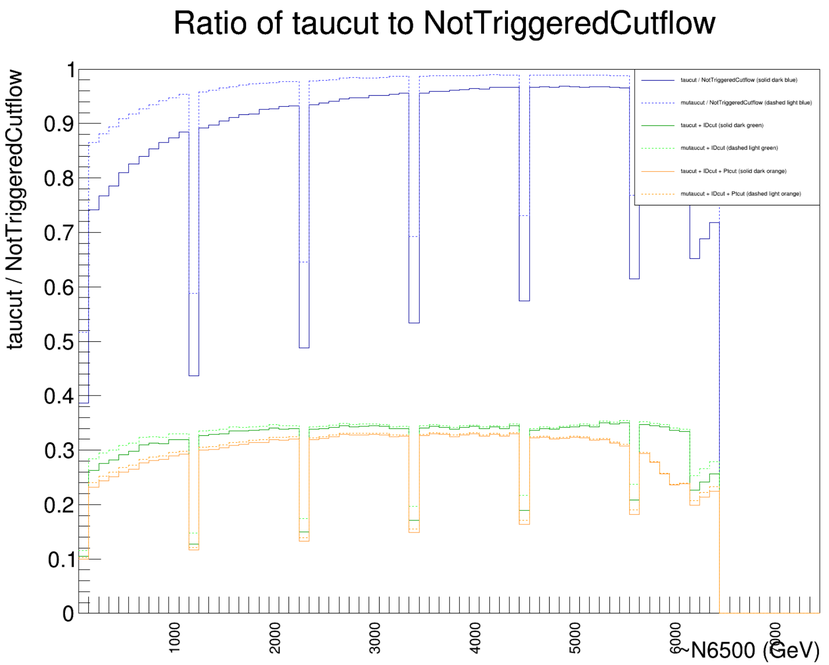
(P_T + τID + τ trigger or μtrigger + MET filter) / MET filter



WR 5500



WR 6000

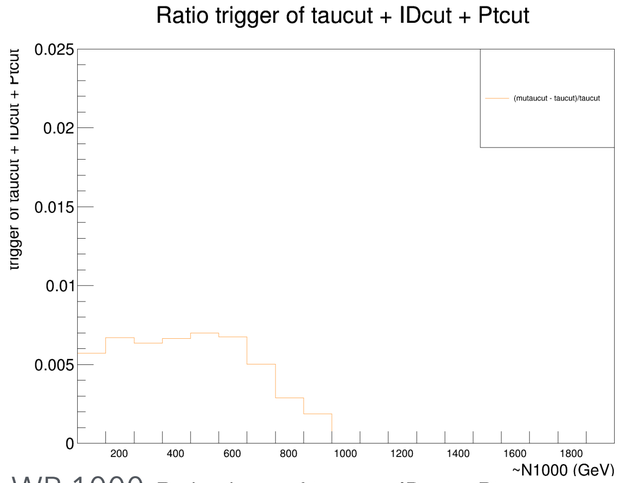


WR 6500

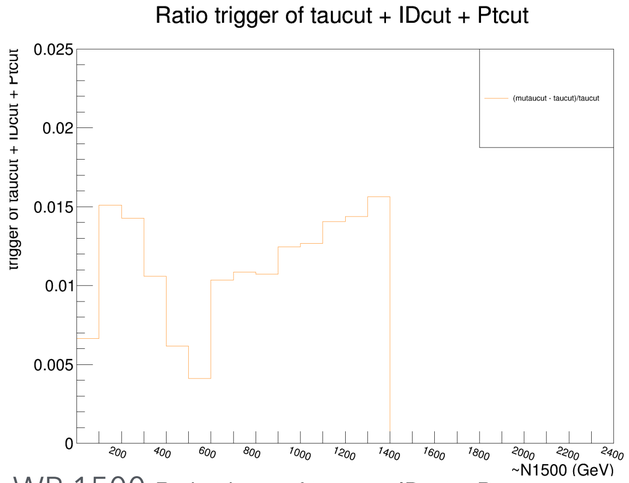
- W_R 5500~6500

μ or τ trigger - τ trigger

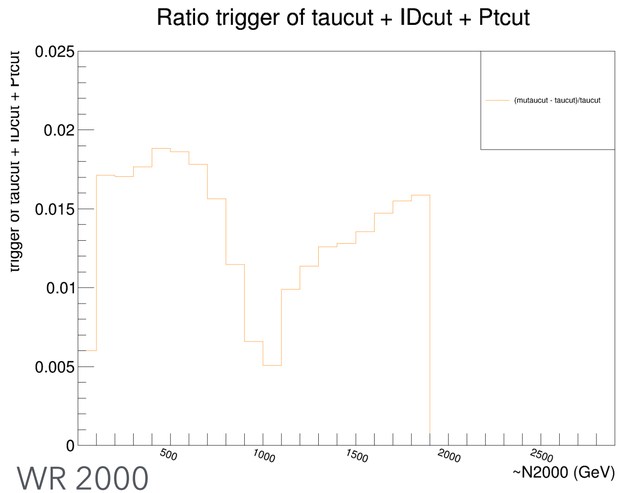
(τ trigger & μtrigger - τ trigger)/ MET filter



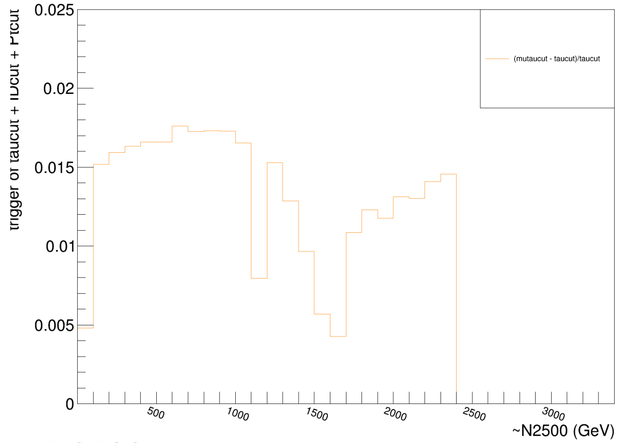
WR 1000



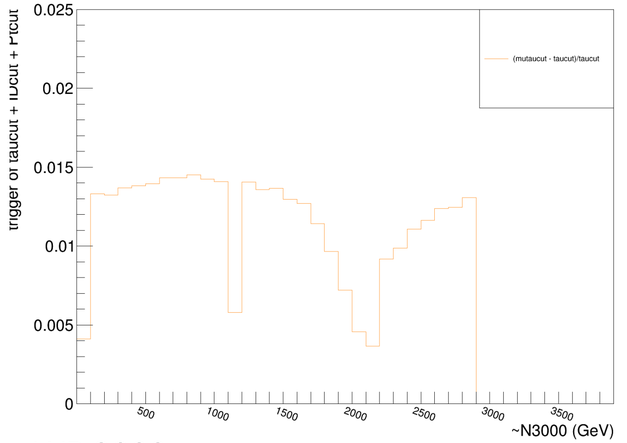
WR 1500



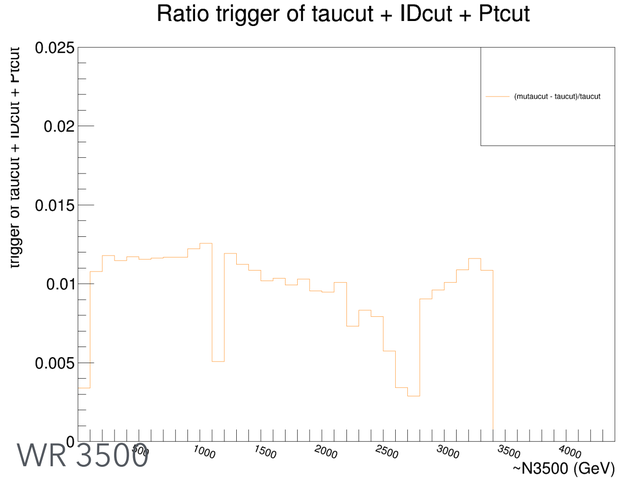
WR 2000



WR 2500



WR 3000

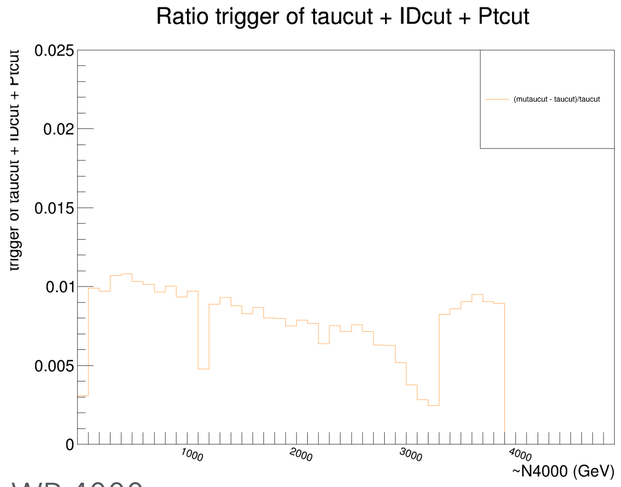


WR 3500

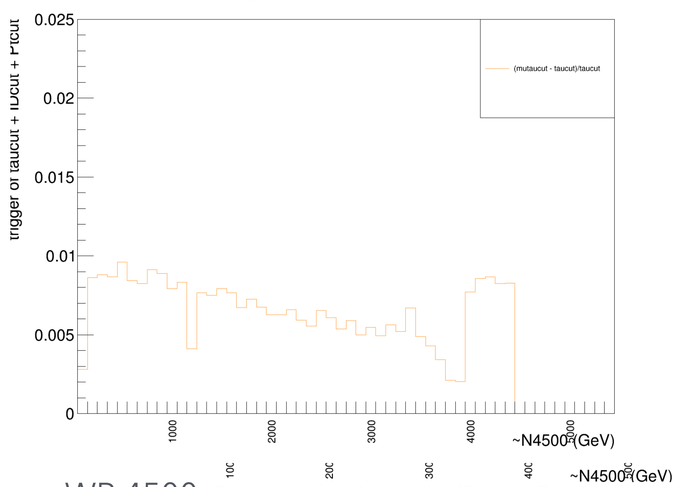
- W_R 1000~ 3500

μ or τ trigger - τ trigger

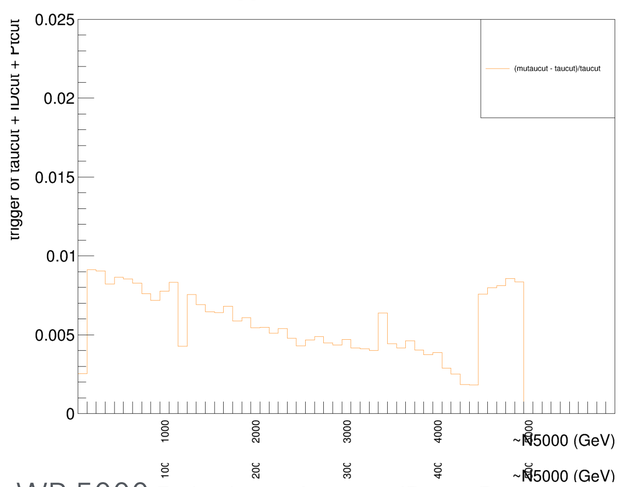
(τ trigger & μtrigger - τ trigger)/ MET filter



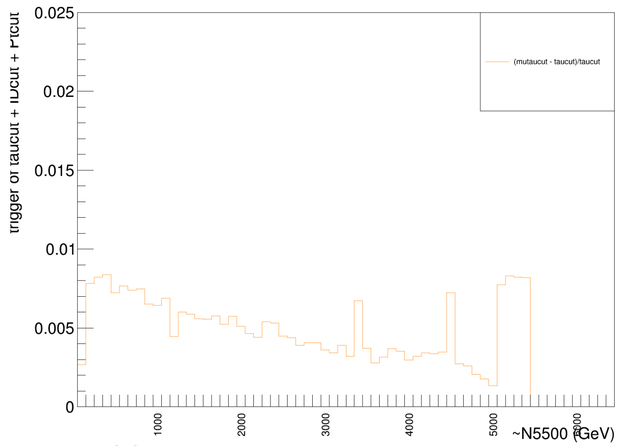
WR 4000



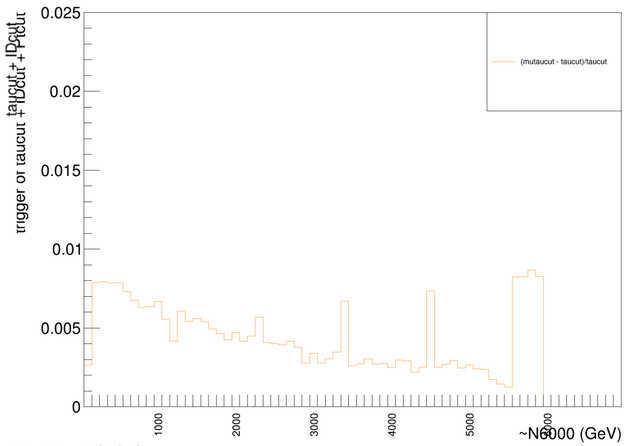
WR 4500



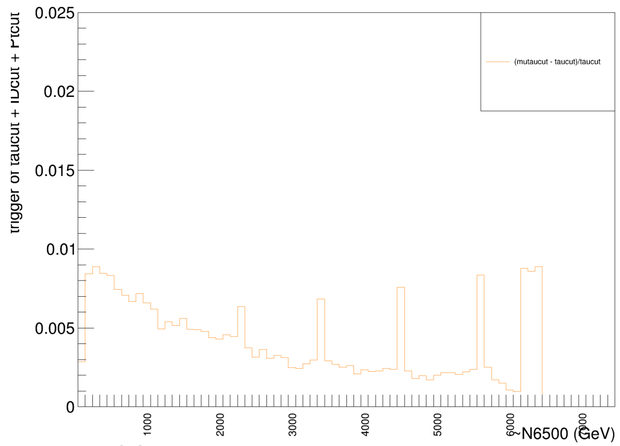
WR 5000



WR 5500

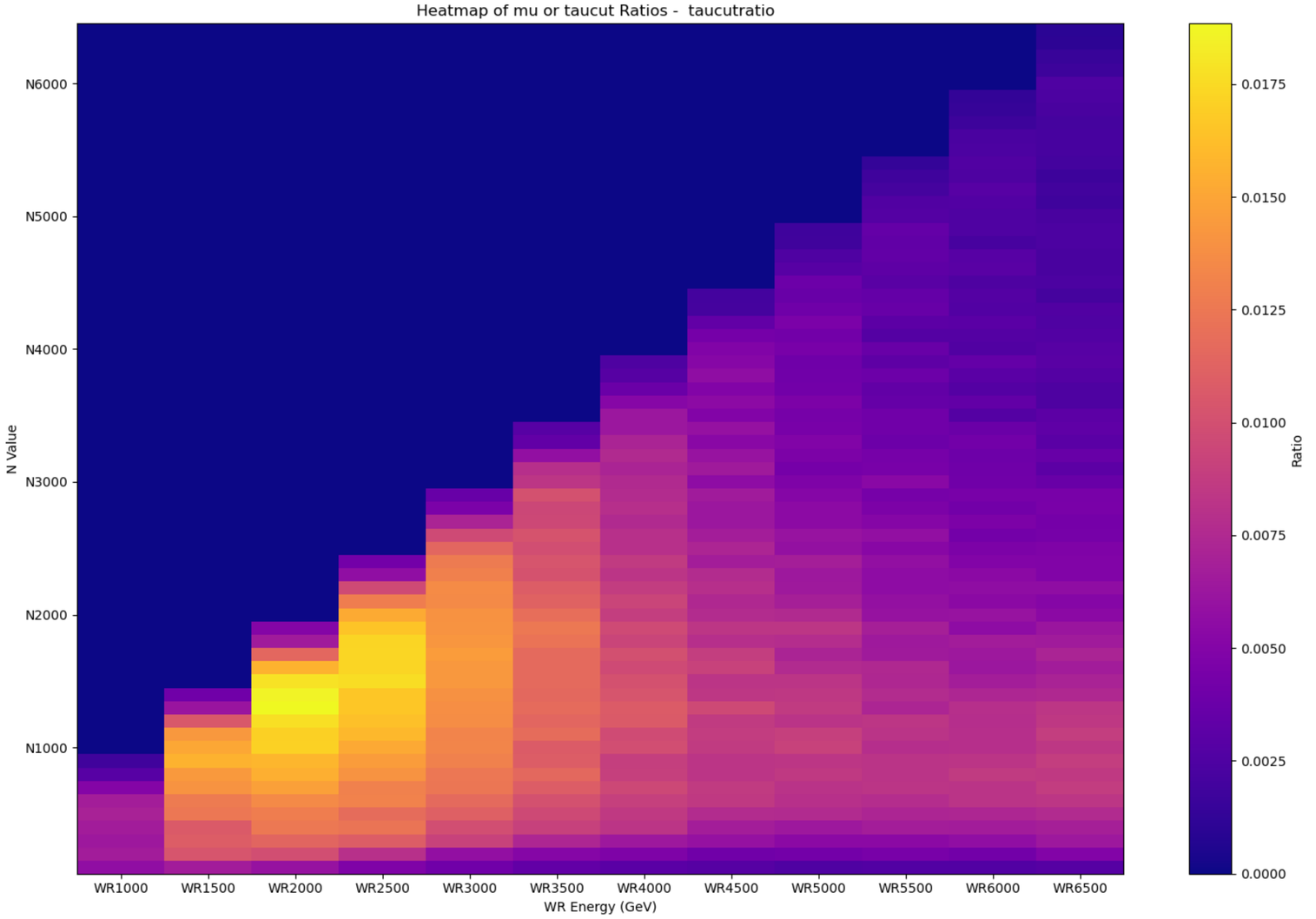


WR 6000



WR 6500

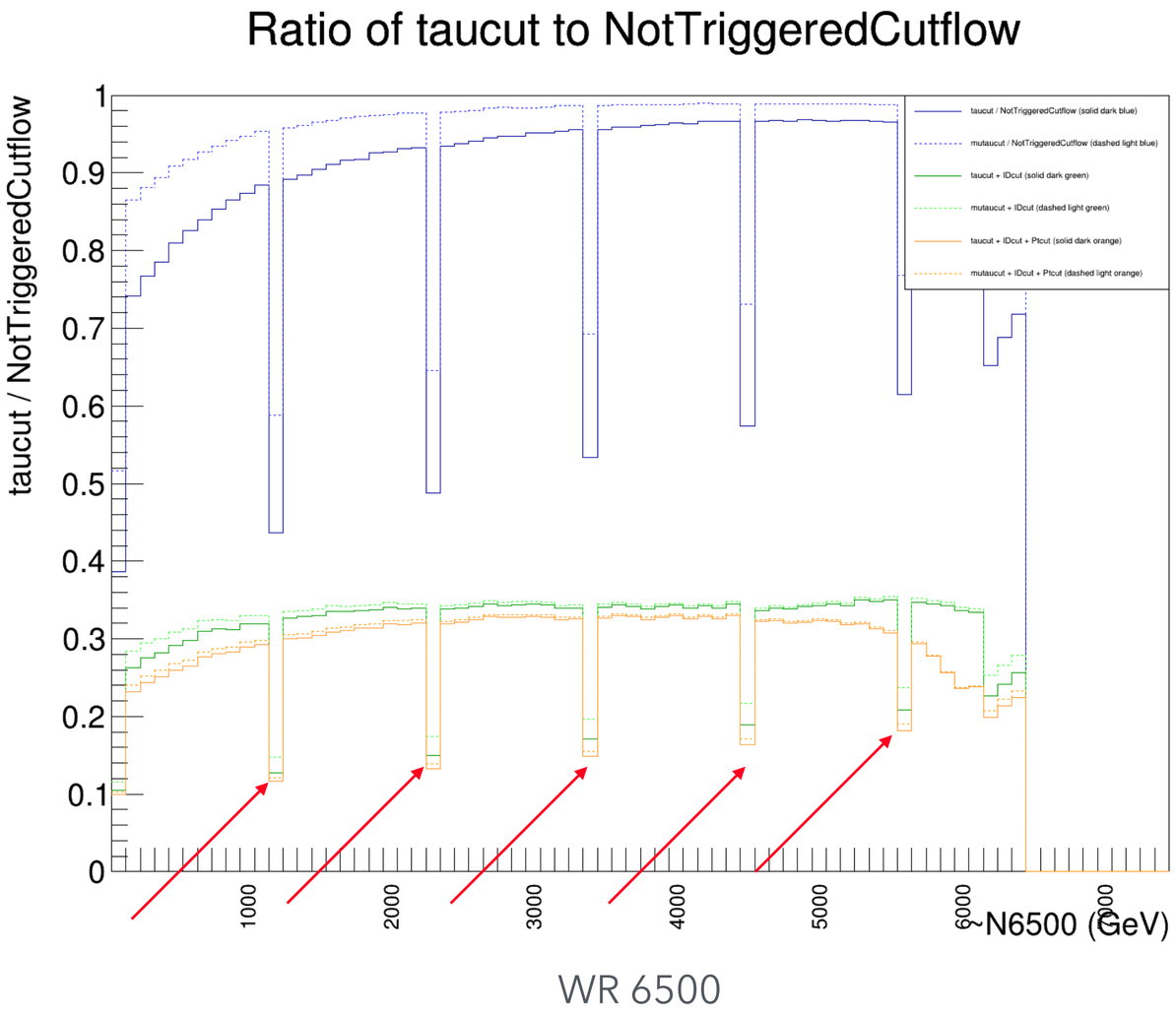
- W_R 4000~6500



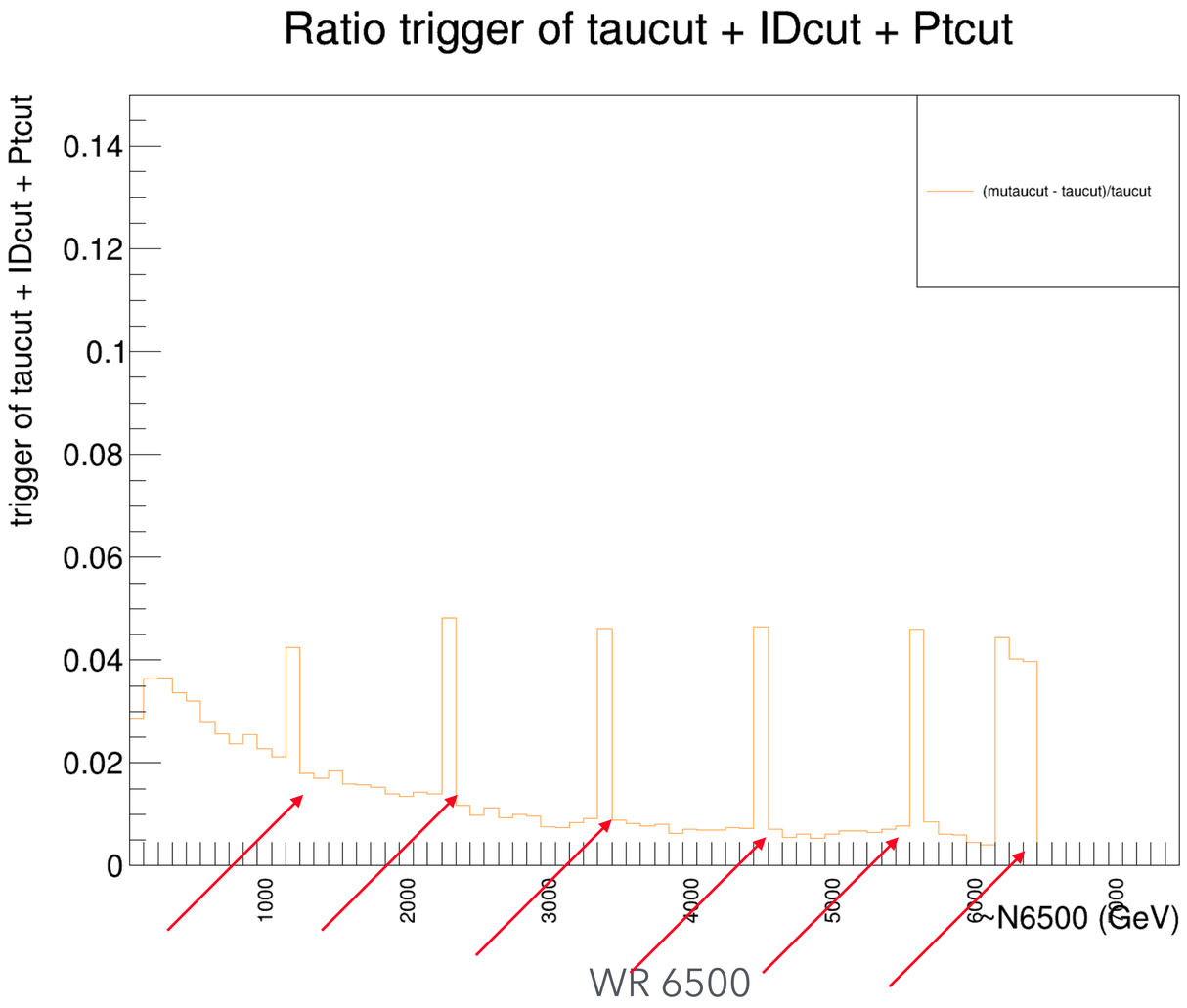
(τ trigger & μtrigger - τ trigger)/ MET filter

Problems

Every 1200GeV has unknown peaks



WR 6500

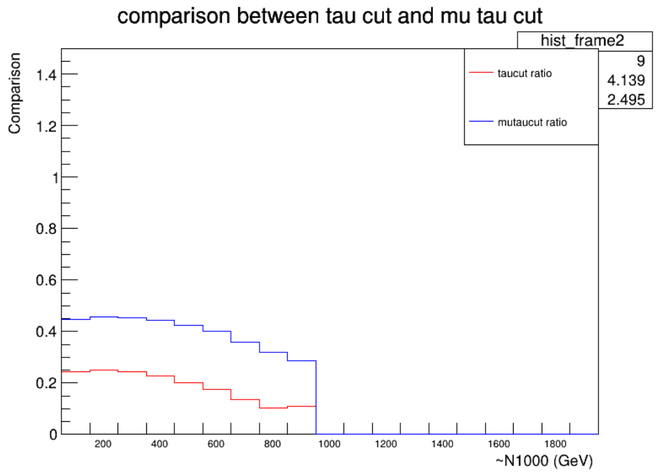


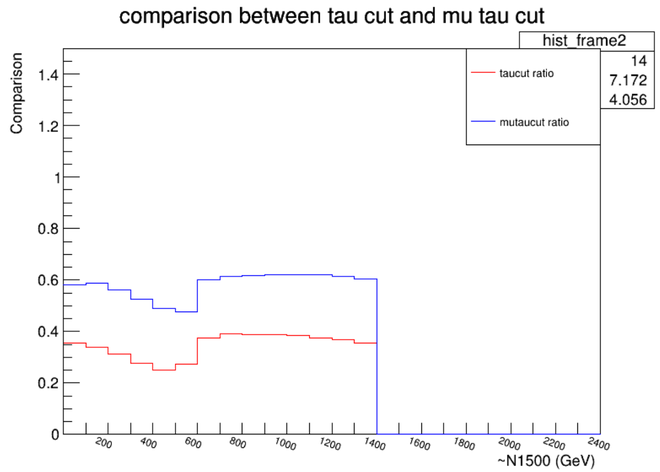
WR 6500

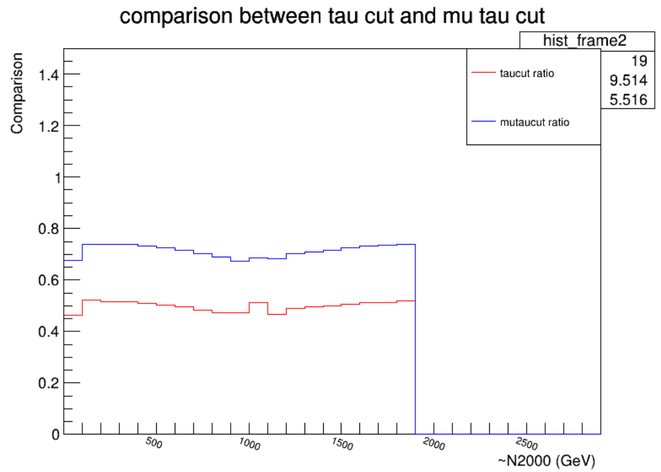
Backup

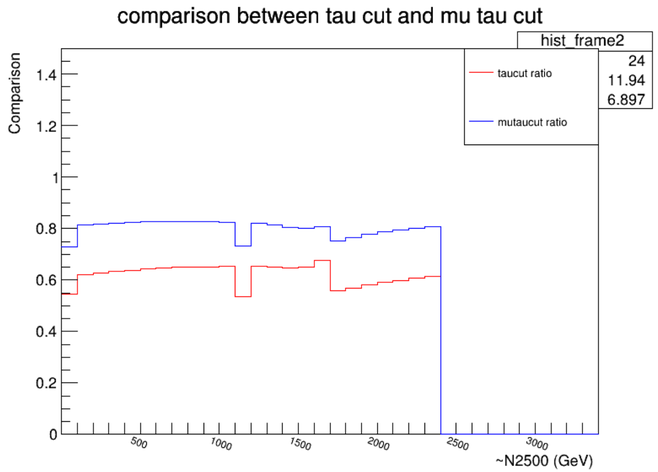
τ ID cut & P_T cut

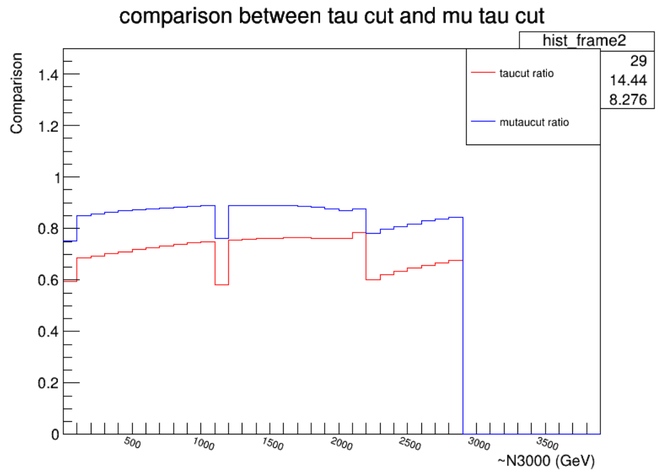
μ or τ trigger & τ trigger

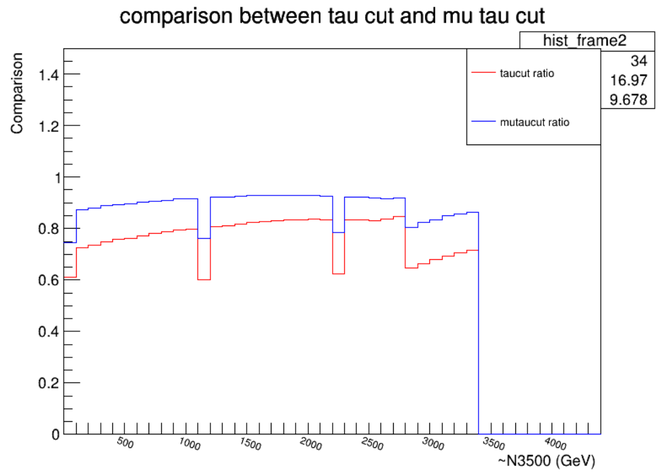






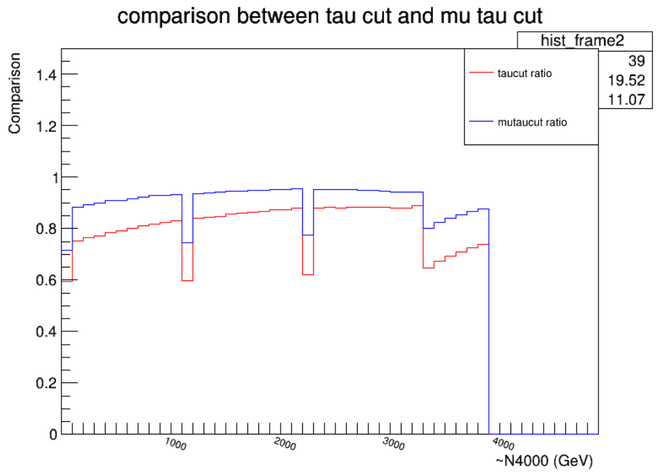


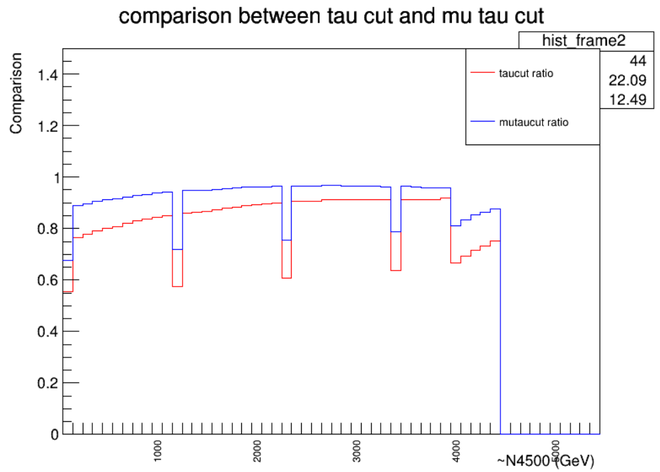


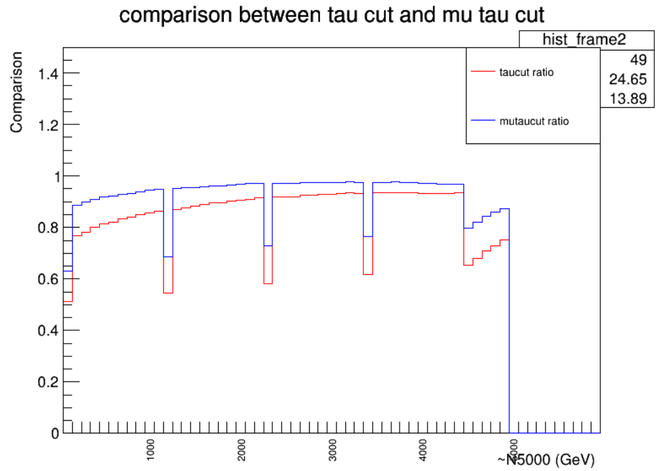


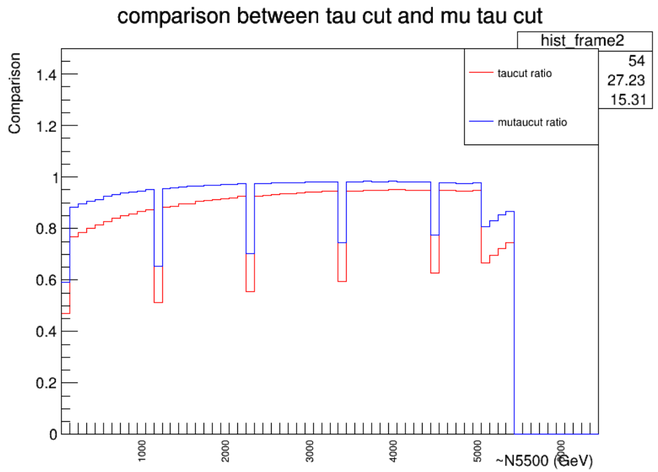
- W_R 1000 ~ 3500

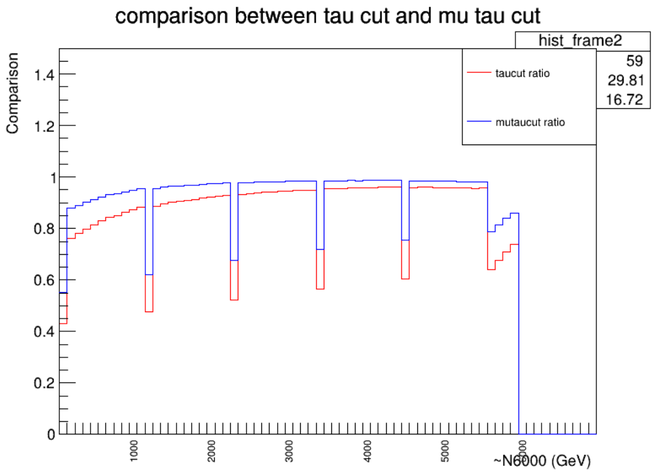
μ or τ trigger & τ trigger

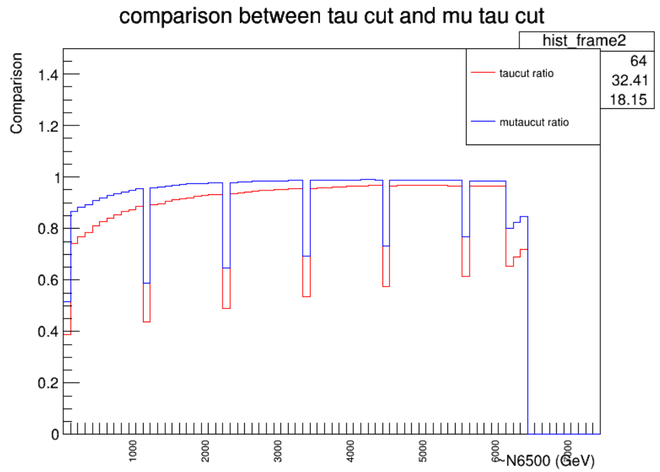










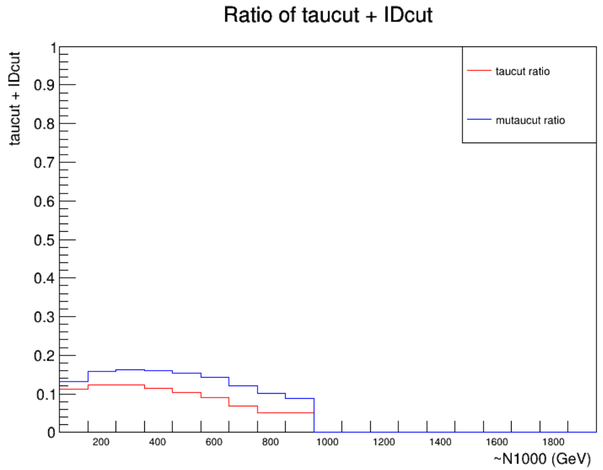


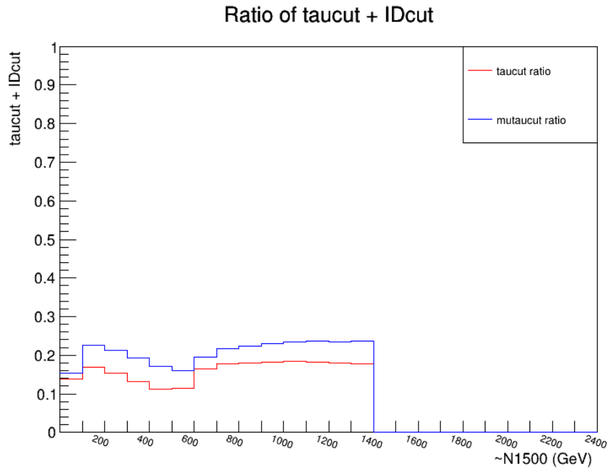
- W_R 4000 ~ 6500

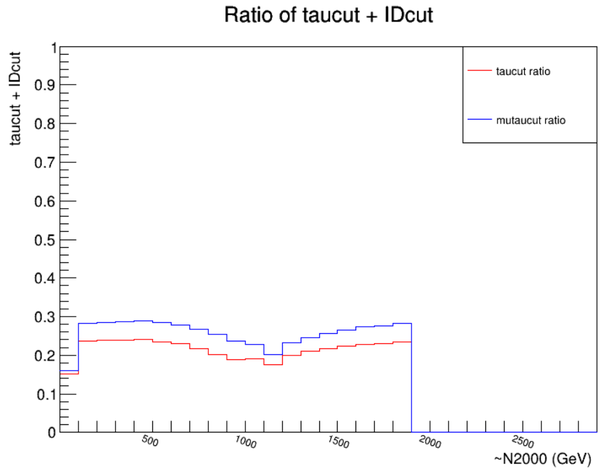
τ ID

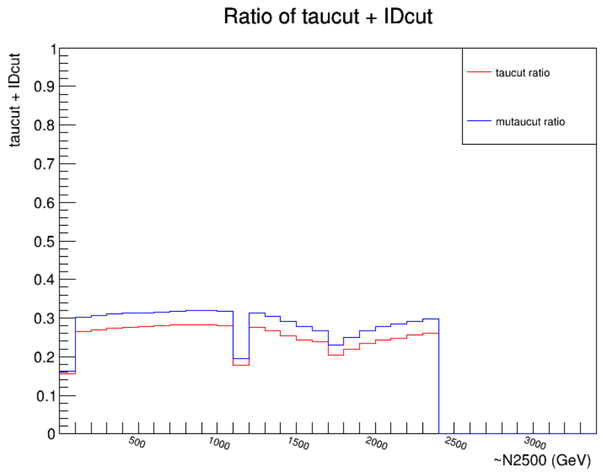
(τID +τ trigger + MET filter) / MET filter

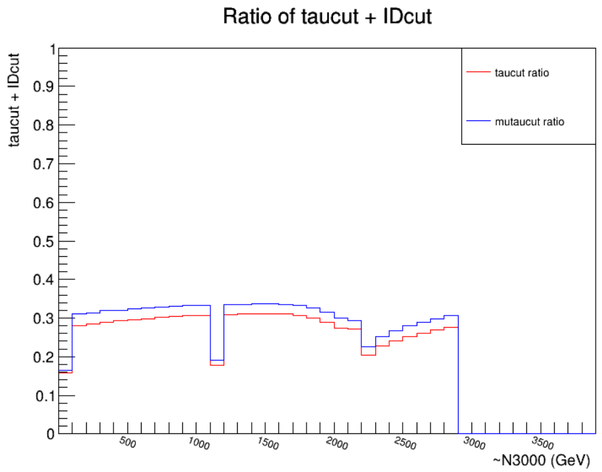
(τID + τ trigger or μtrigger + MET filter) / MET filter

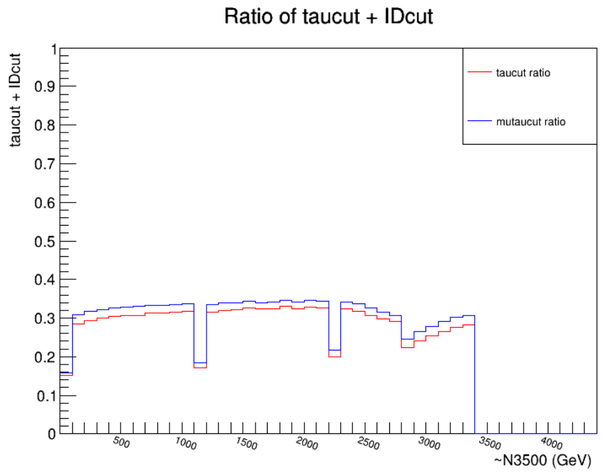










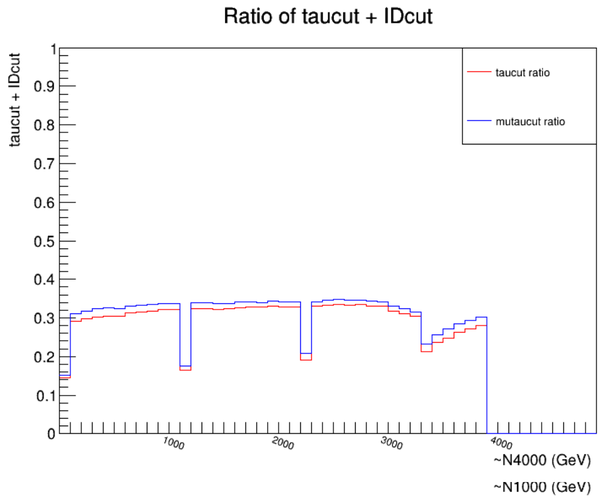


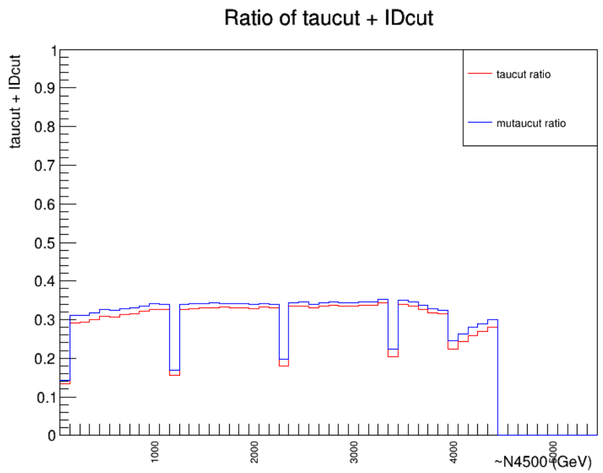
- W_R 1000 ~ 3500

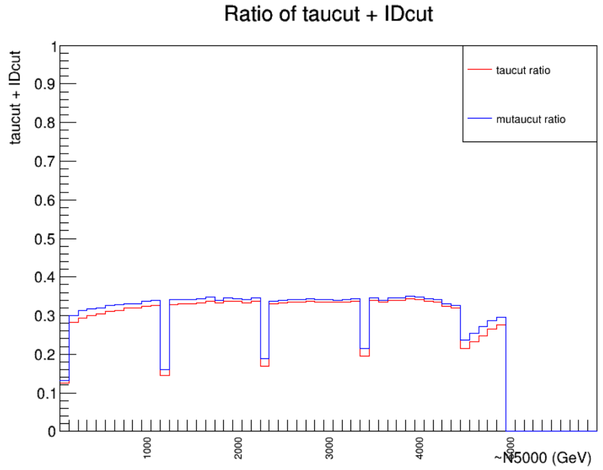
τ ID

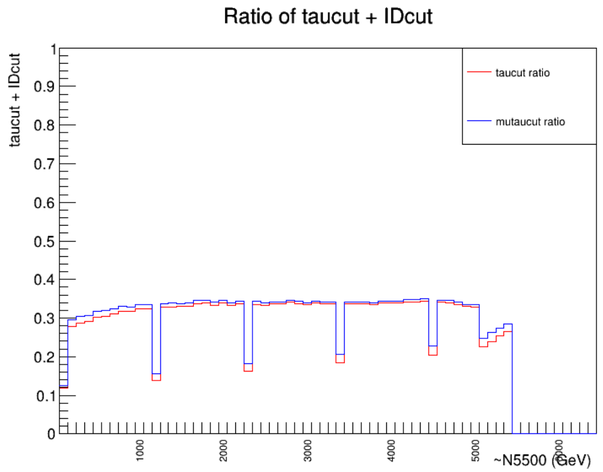
(τID +τ trigger + MET filter) / MET filter

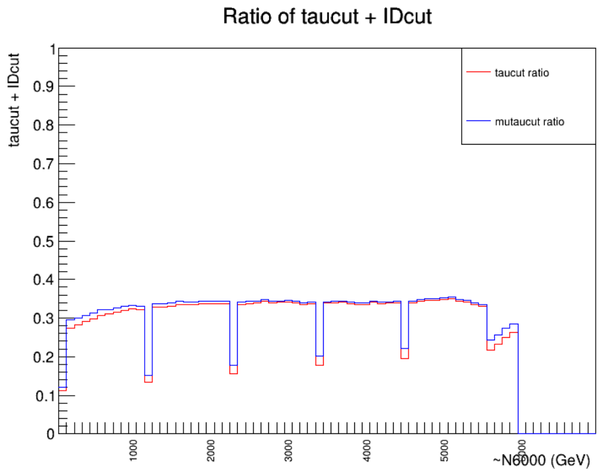
(τID + τ trigger or μtrigger + MET filter) / MET filter

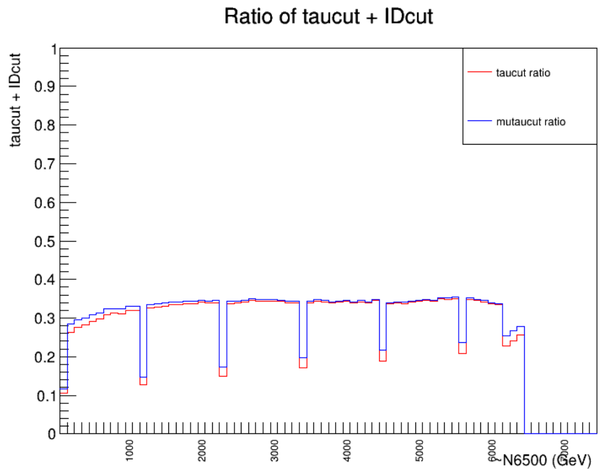










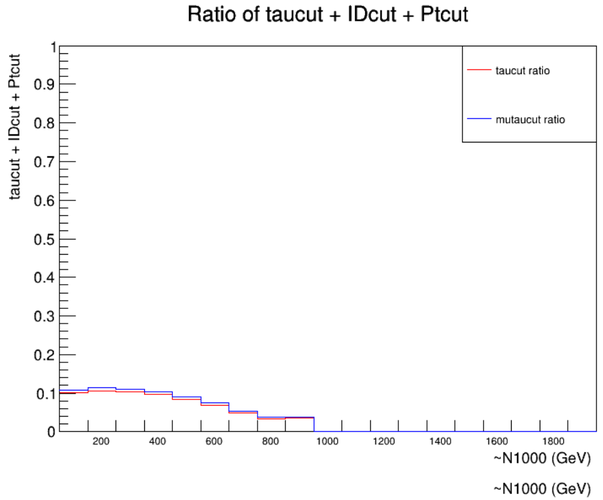


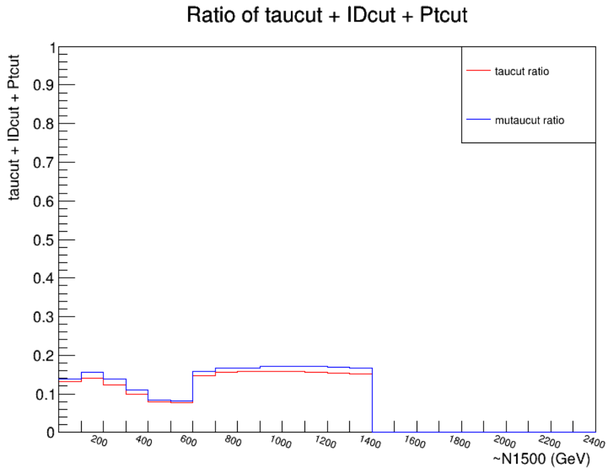
- W_R 4000~6500

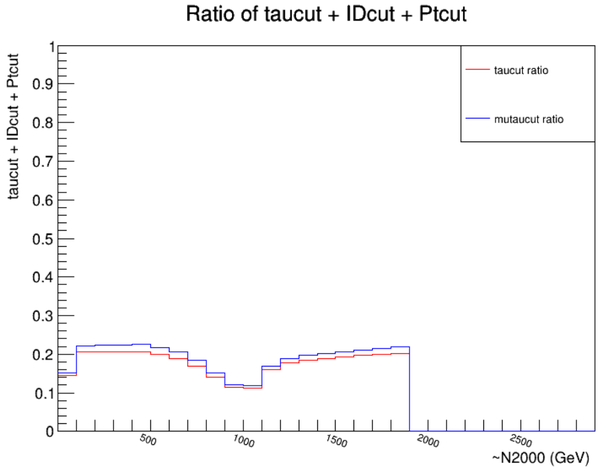
P_T

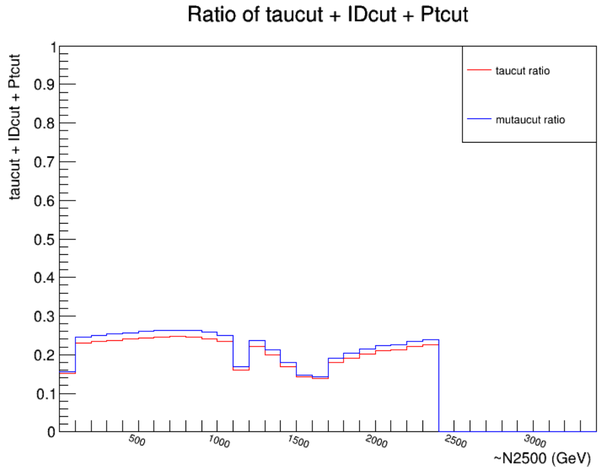
(P_T + τID +τ trigger + MET filter) / MET filter

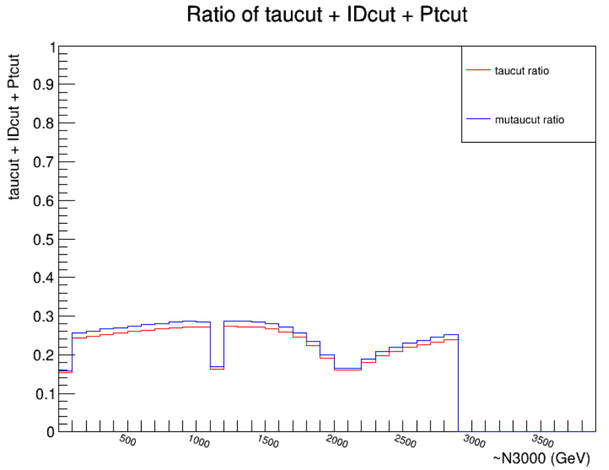
(P_T + τID + τ trigger or μtrigger + MET filter) / MET filter

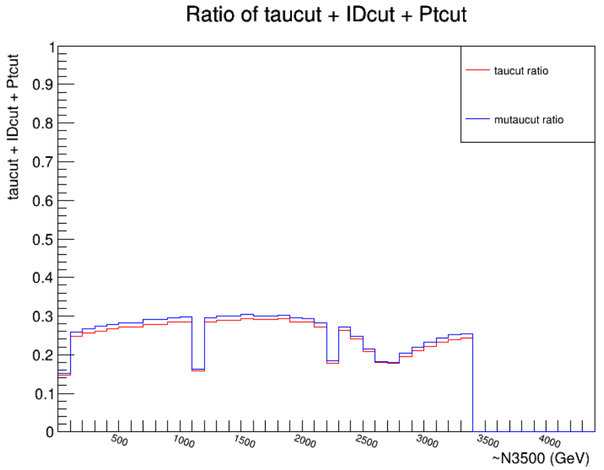










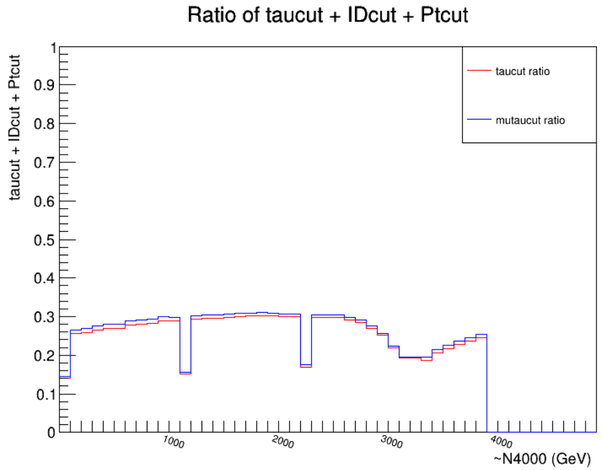


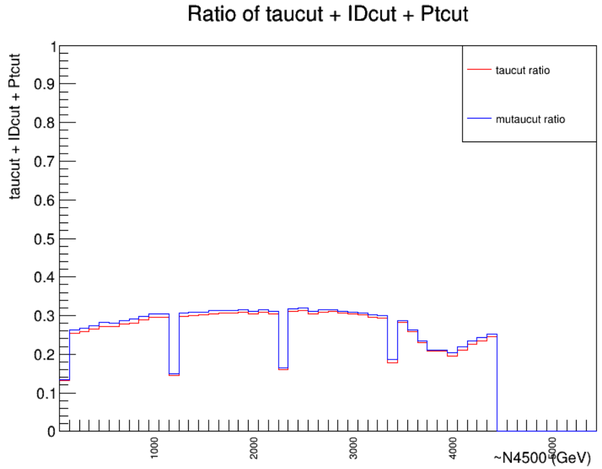
- W_R 1000 ~ 3500

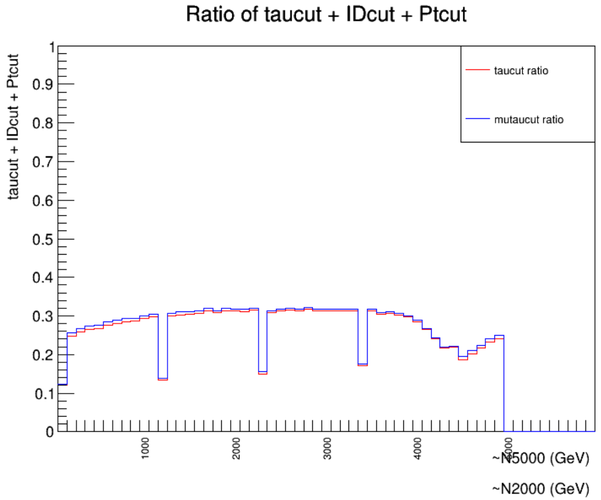
P_T

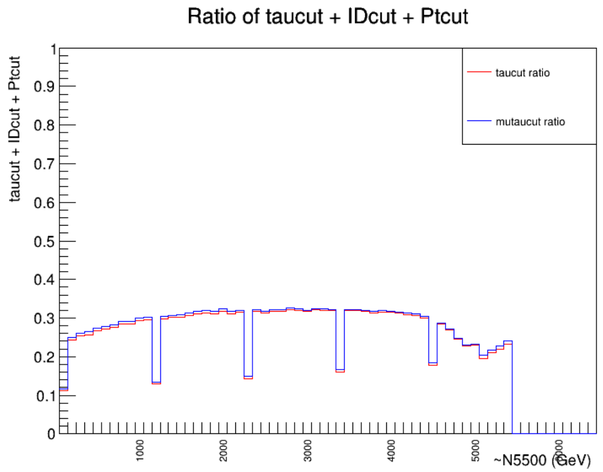
(P_T + τID +τ trigger + MET filter) / MET filter

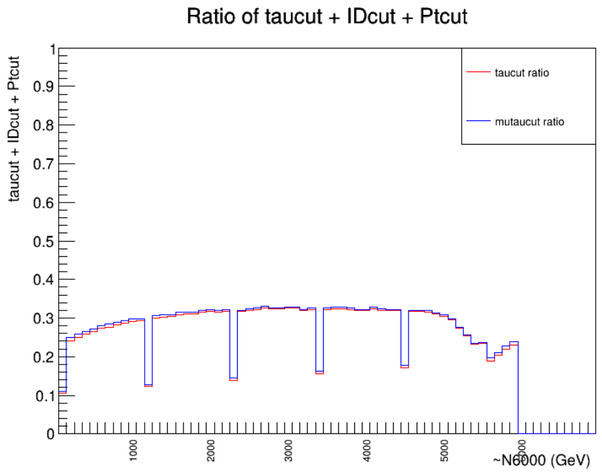
(P_T + τID + τ trigger or μtrigger + MET filter) / MET filter

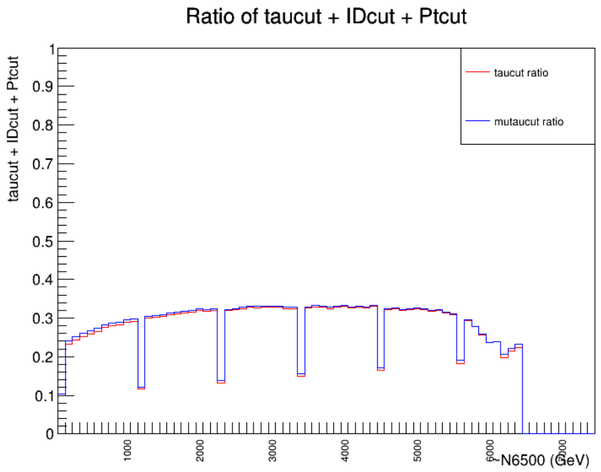




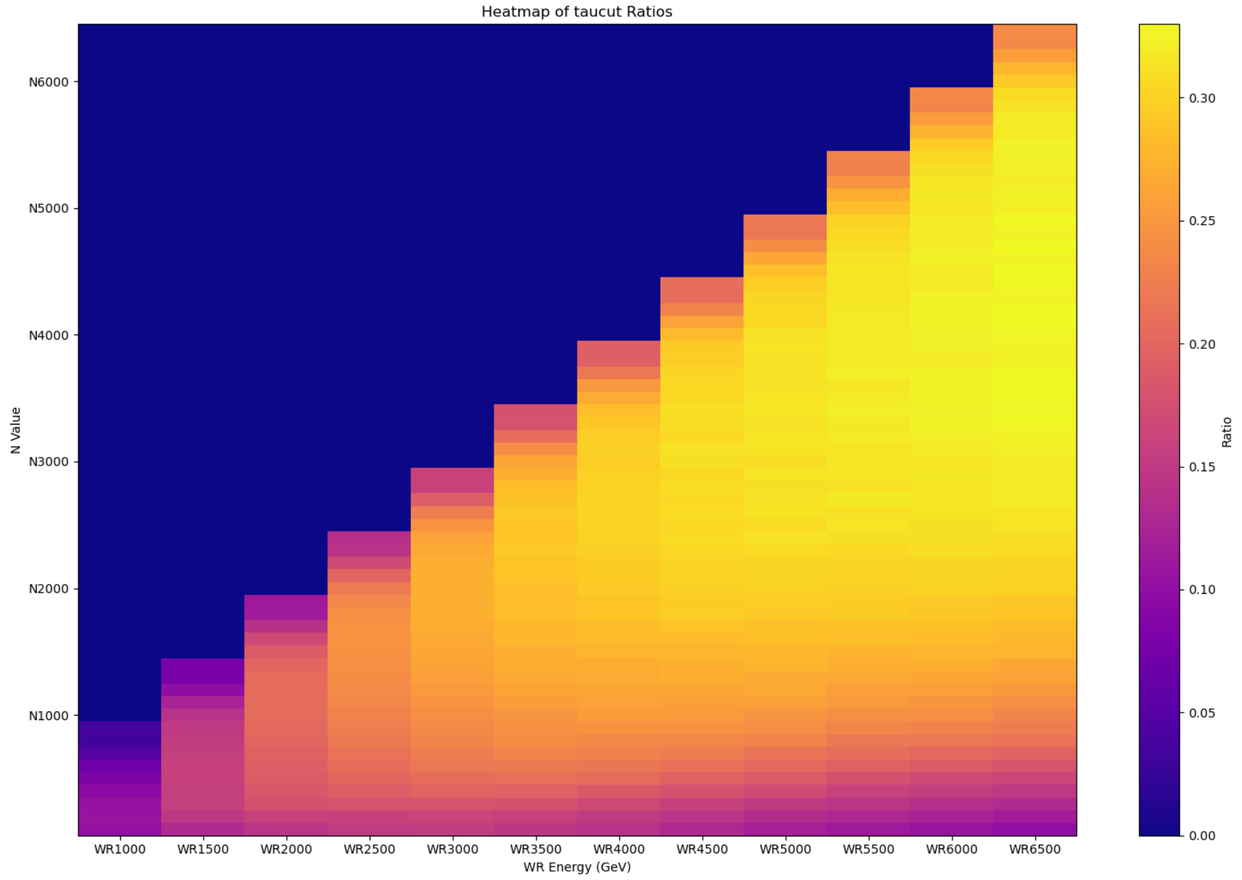


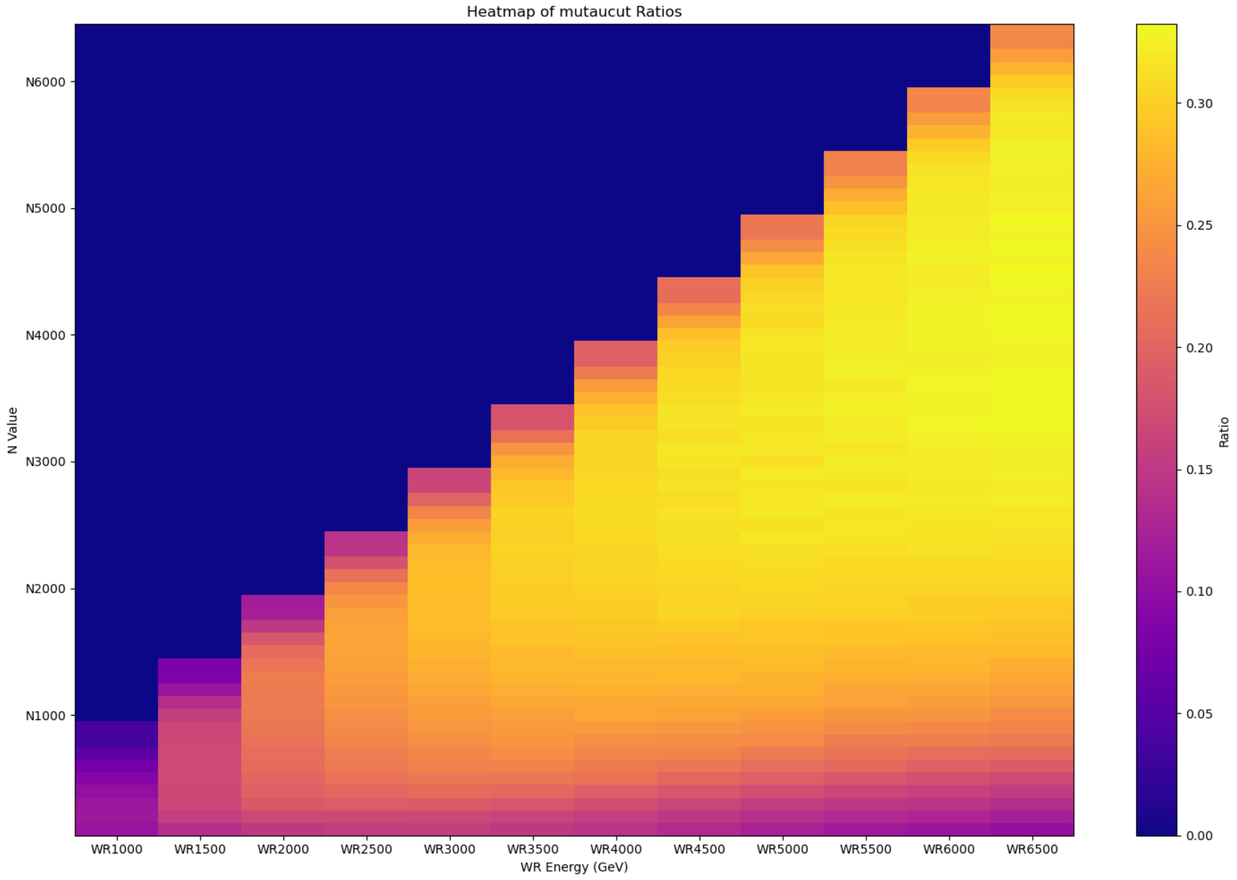






- W_R 4000~6500





(P_T + τID +τ trigger + MET filter) / MET filter

(P_T + τID + τ trigger or μtrigger + MET filter) / MET filter