

# jet $p_T$ dist with eta dependence

26 Mar. 2015

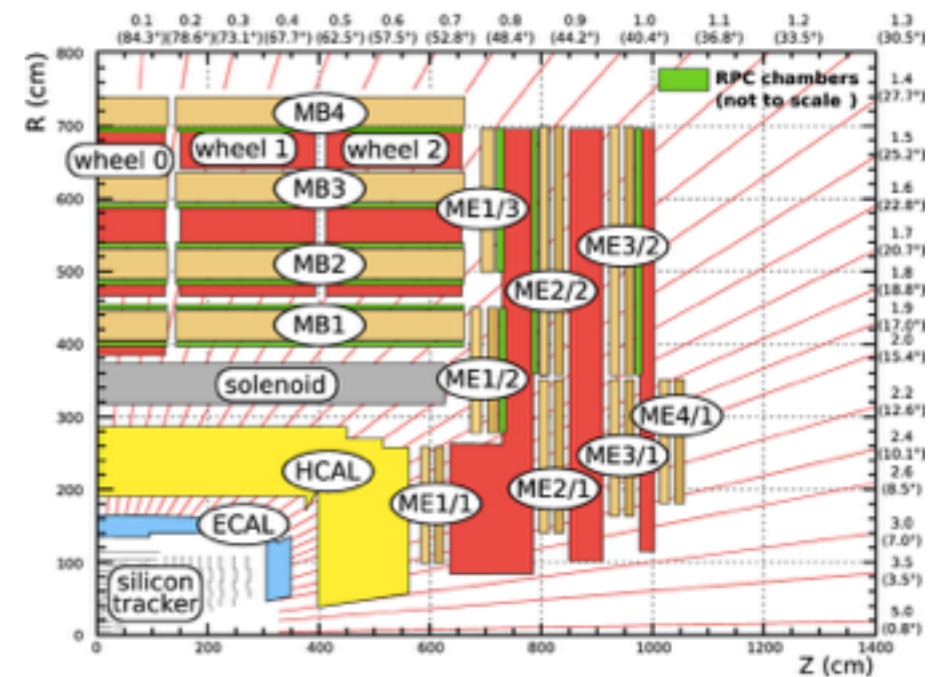
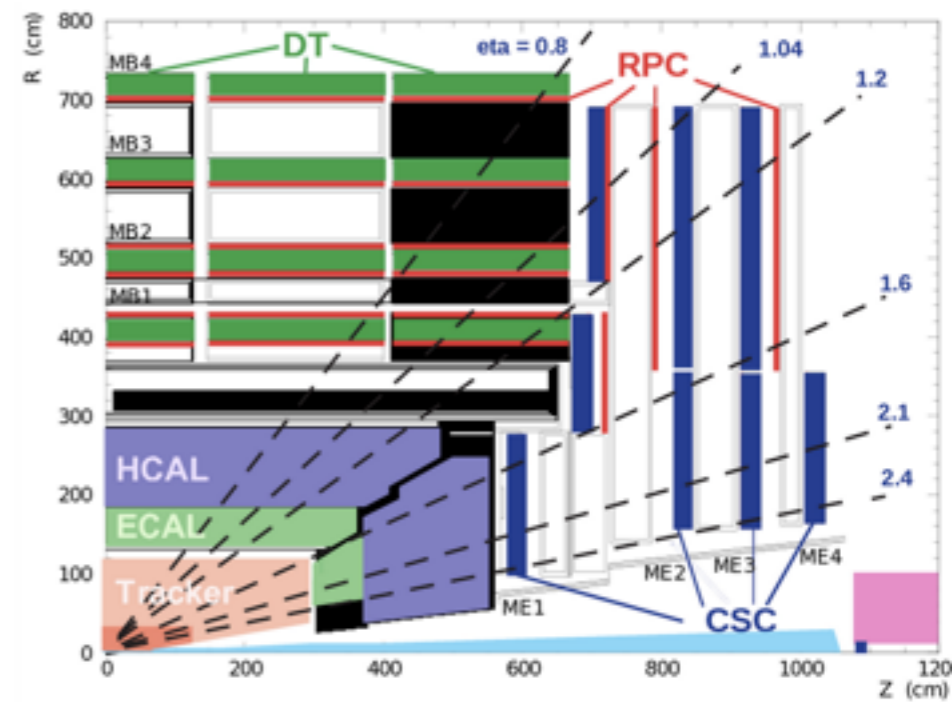
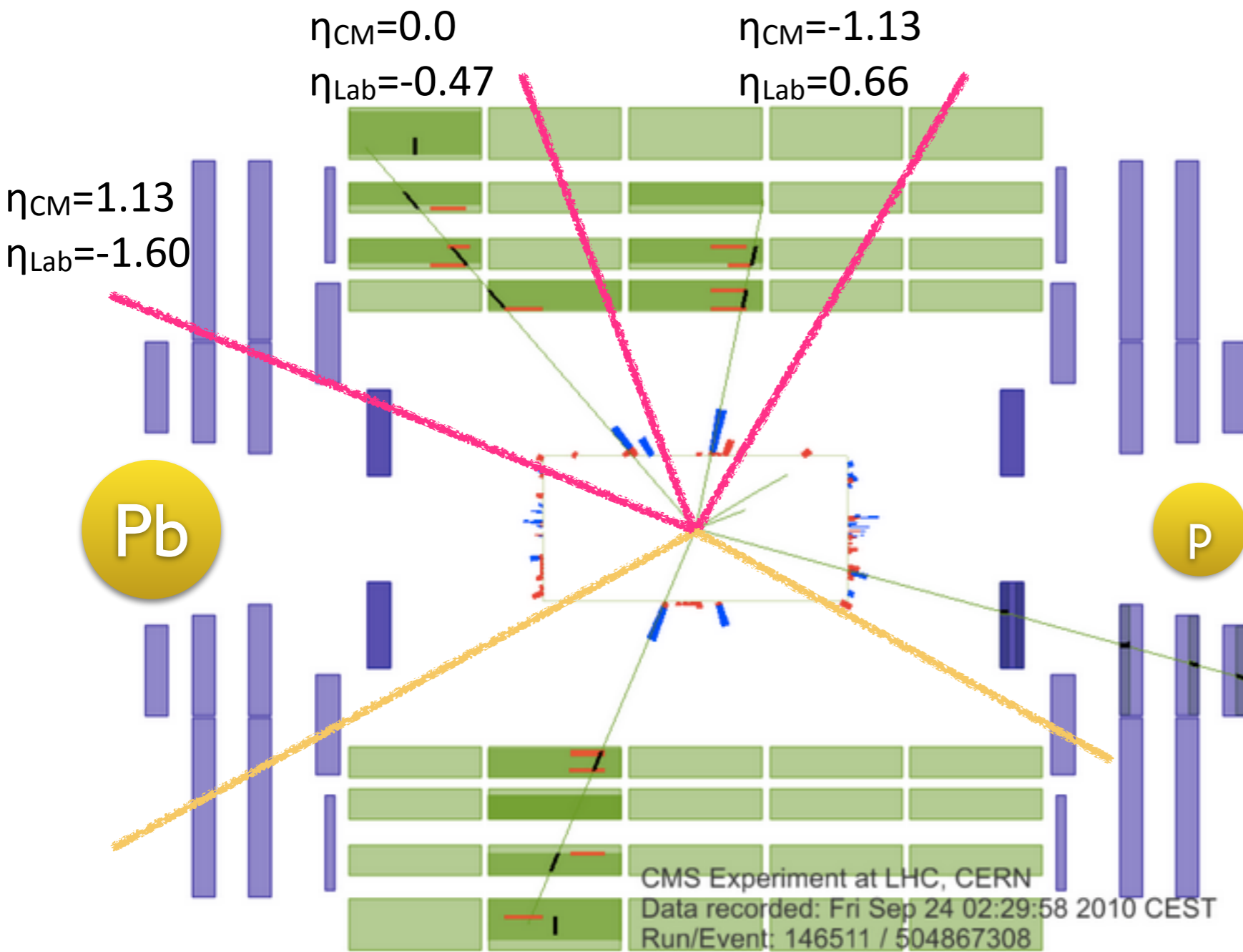
Yeonju Go\*

Yongsun Kim

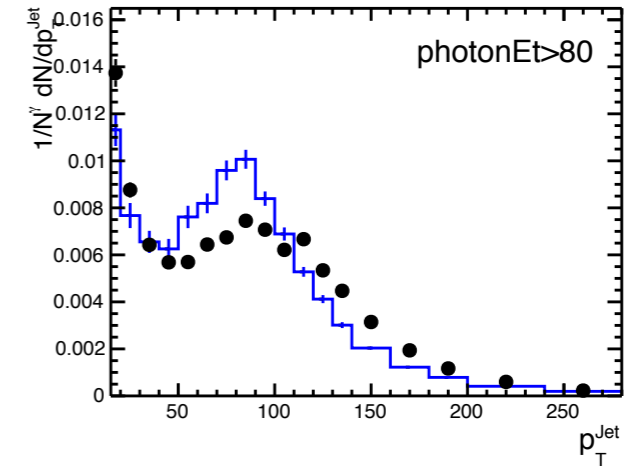
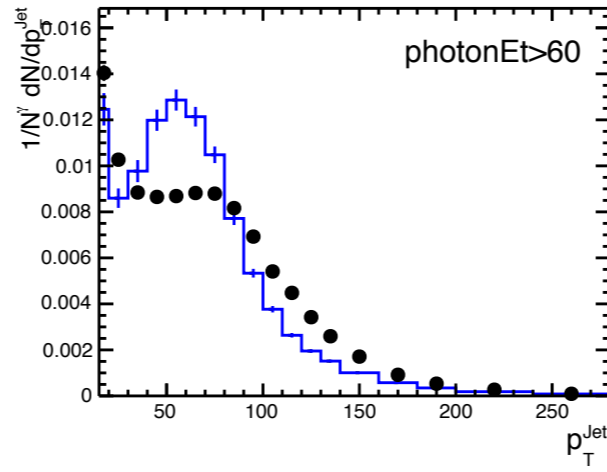
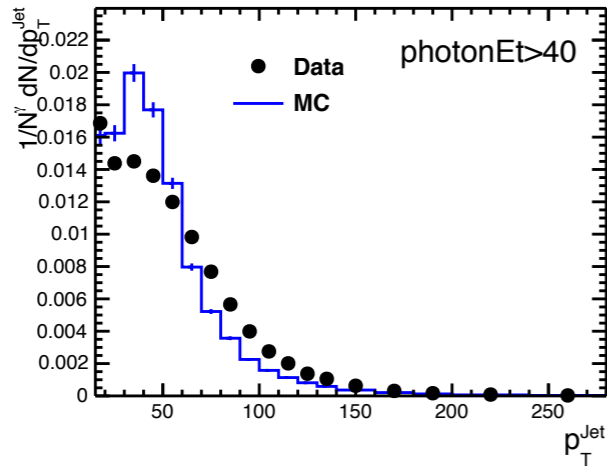


# Eta range

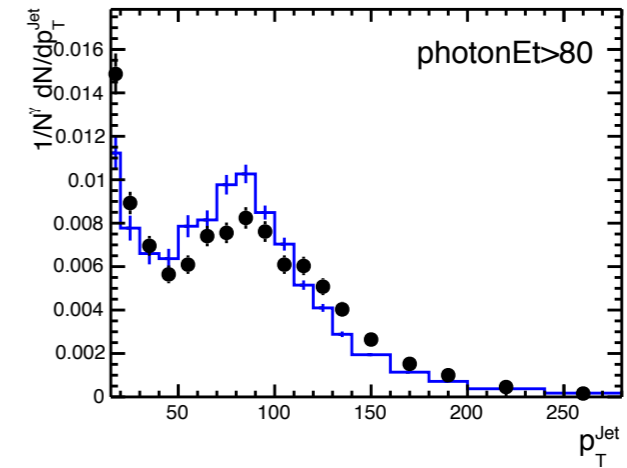
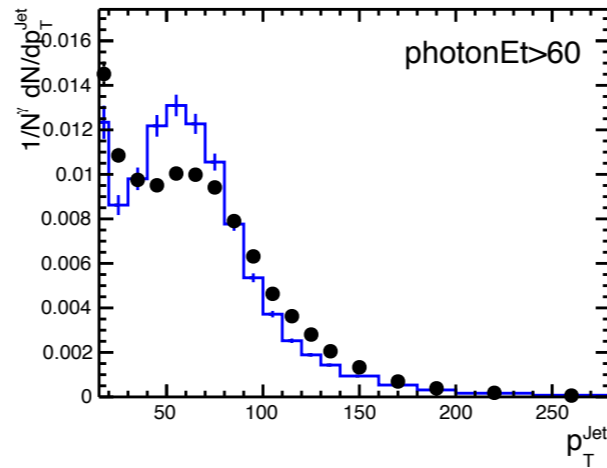
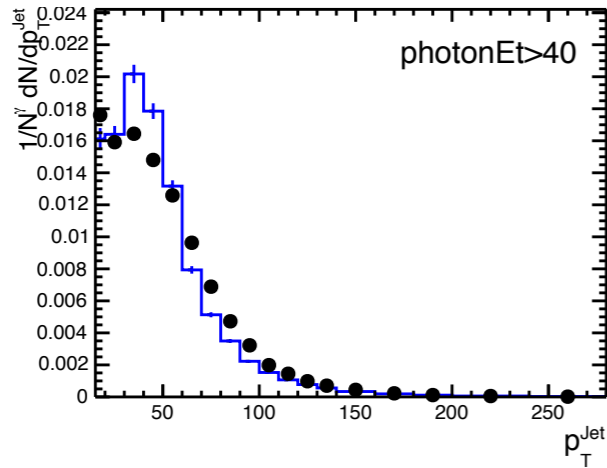
arXiv:1206.4071



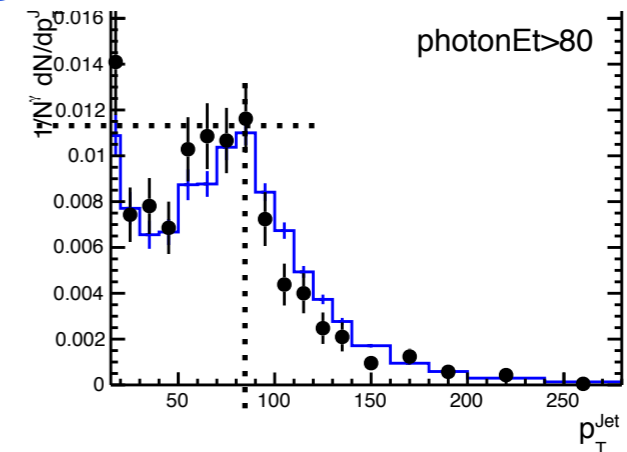
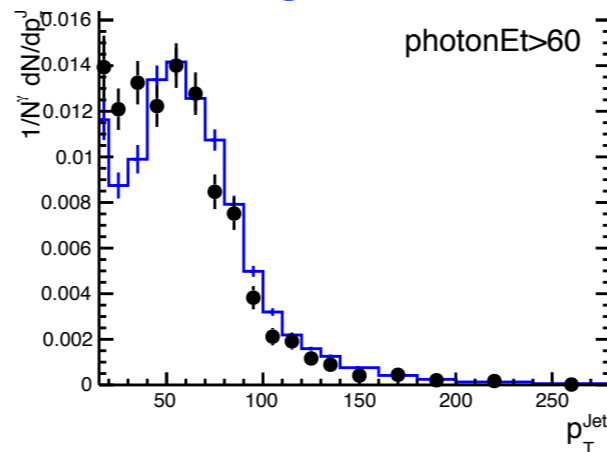
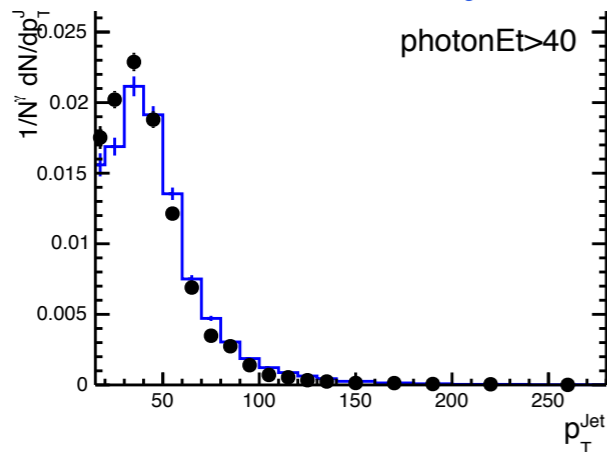
common condition :  $|\eta_{Jet}| < 1.6, \Delta\phi(\gamma, Jet) > 2\pi/3, |\eta_\gamma| < 1.44$



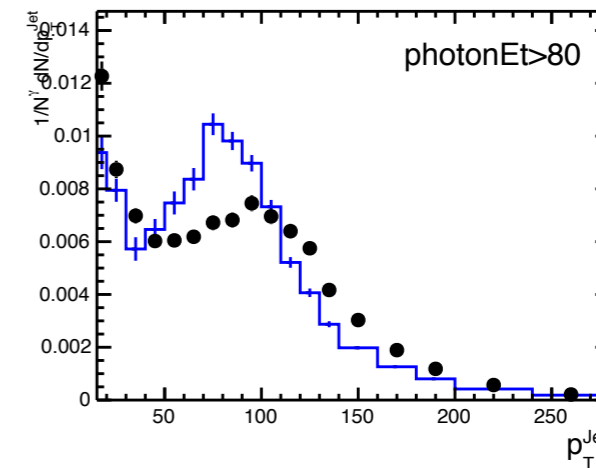
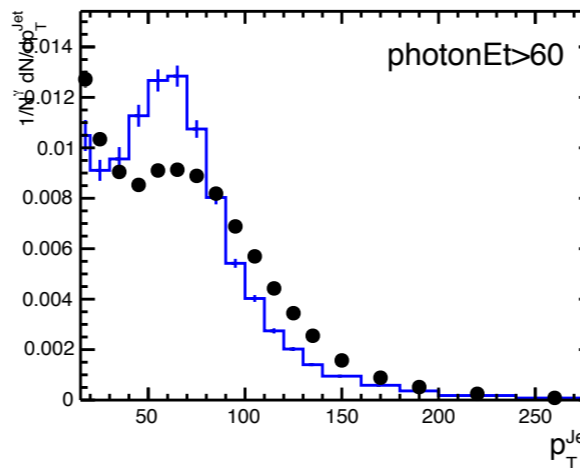
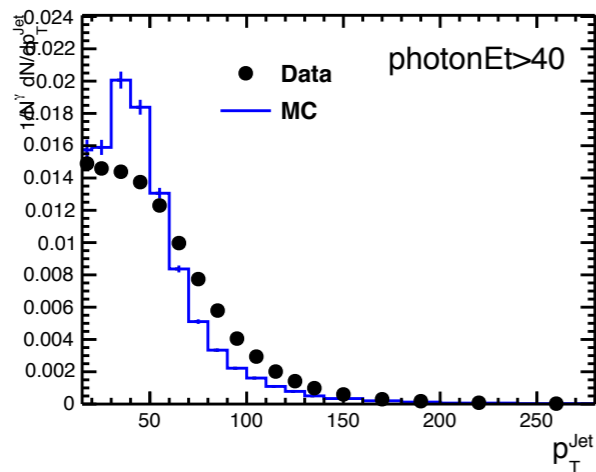
$\sigma_{\eta\eta} < 0.01$



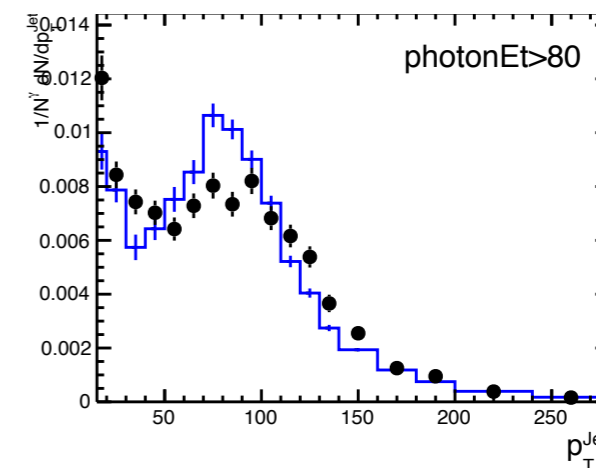
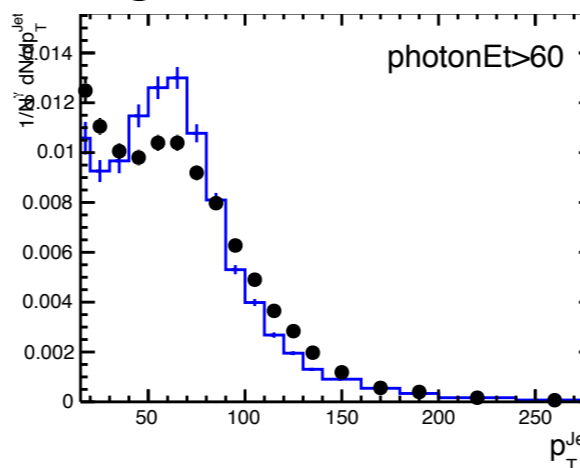
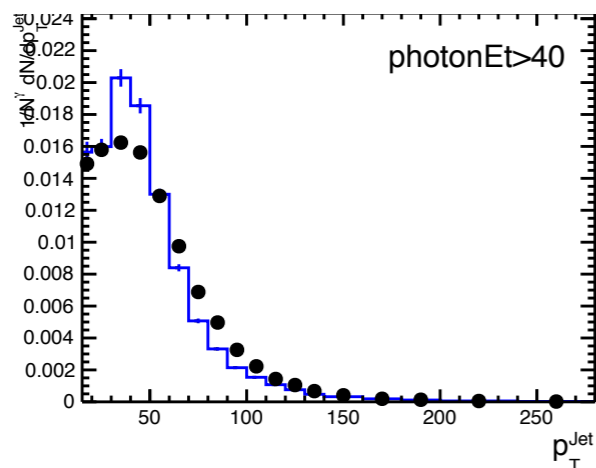
$\sigma_{\eta\eta} < 0.01$  &  $ecalIso < 4.2$  &  $hcalIso < 2.2$  &  $trackIso < 2.0$   
 (only in MC)  $genIso < 5$  &  $abs(genMomId) \leq 22$  &  $genPhotonEt > 0$



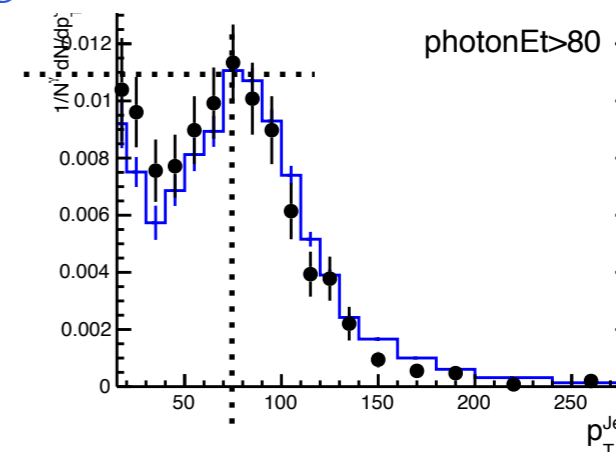
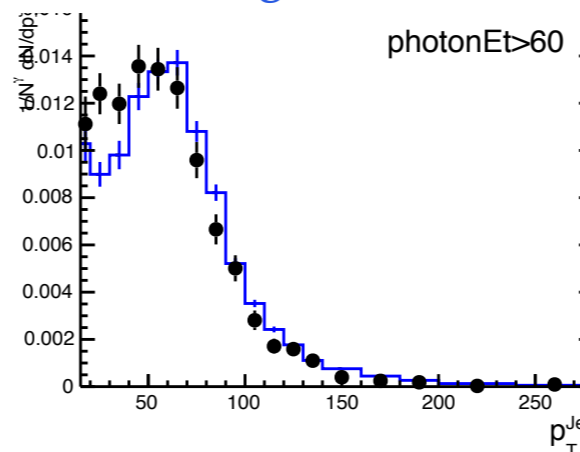
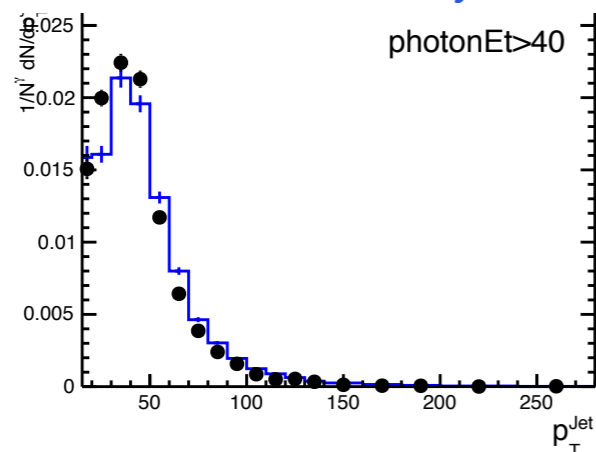
common condition :  $|\eta^{Jet}| < 1.6, \Delta\phi(\gamma, Jet) > 2\pi/3, |\eta^\gamma| < 1.44$



$\sigma_{\eta^{\eta}} < 0.01$



$\sigma_{\eta^{\eta}} < 0.01$  &  $ecalIso < 4.2$  &  $hcalIso < 2.2$  &  $trackIso < 2.0$   
 (only in MC)  $genIso < 5$  &  $abs(genMomId) \leq 22$  &  $genPhotonEt > 0$

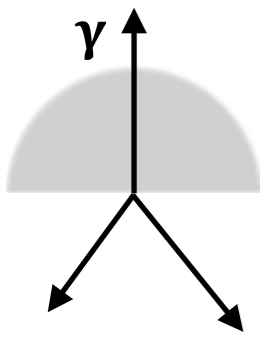


# BACKUP

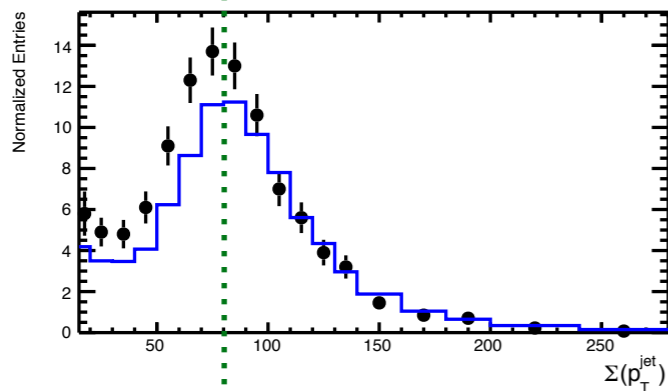
# two jet vector sum

condition :  $\Delta\phi(\gamma, \text{Jet}) > \pi/2$ ,  $|\eta^{\text{Jet}}| < 1.6$ ,  $|\eta^\gamma| < 1.44$ ,  $p_T^\gamma > 80 \text{ GeV}$ ,  $\sigma_{\eta\eta} < 0.01$ , isolation condition

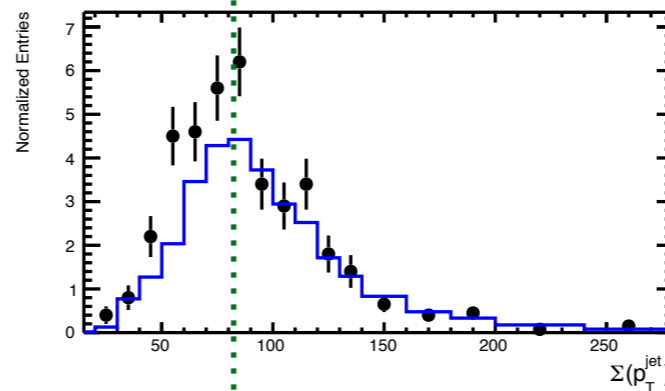
\* event by event calculation



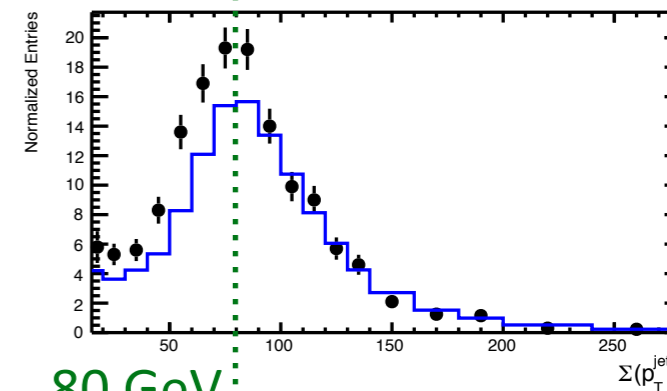
# of jet = 1



# of jet = 2



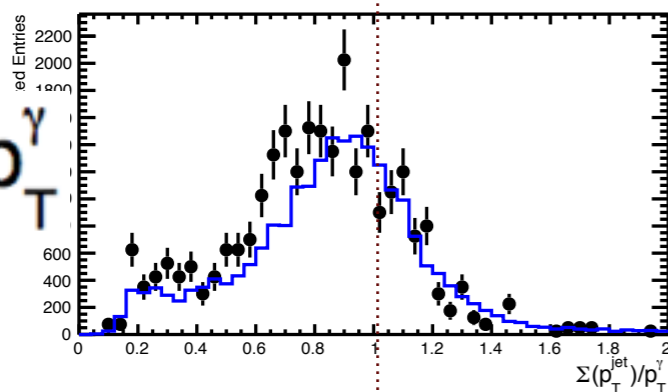
# of jet = 1 or 2



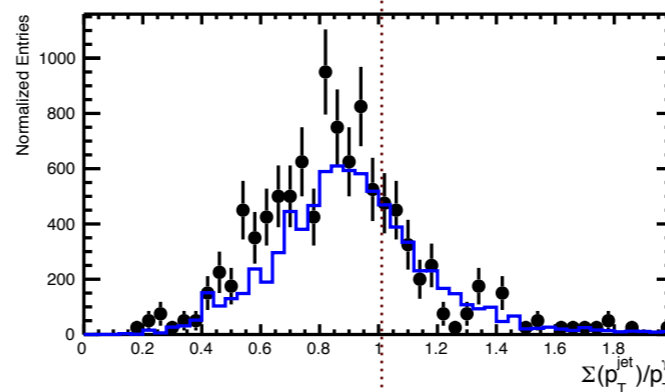
80 GeV

$\Sigma(p_T^{\text{jet}})$

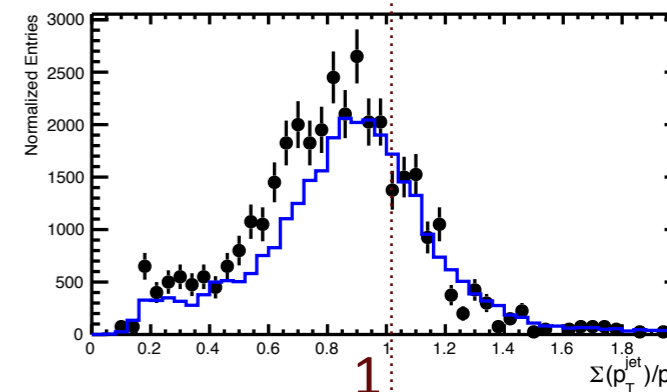
njet=1



njet=2



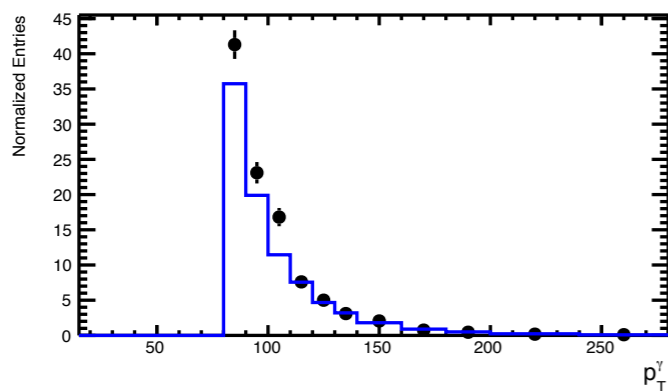
njet=1 or 2



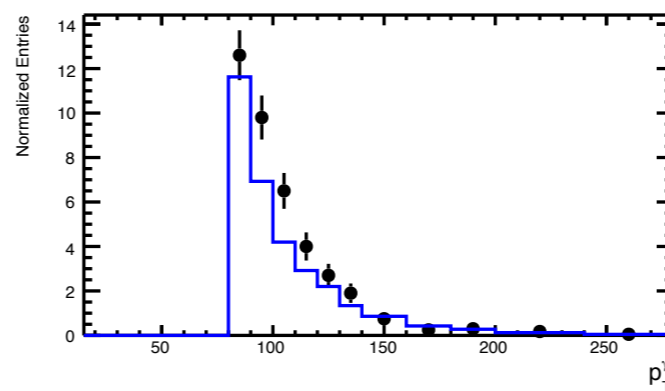
1

$\Sigma(p_T^{\text{jet}})/p_T^\gamma$

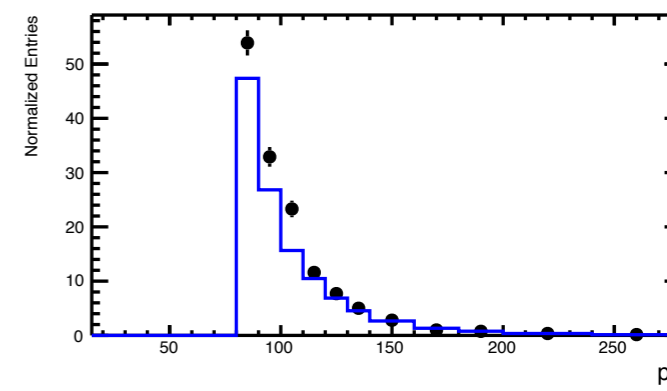
njet=1



njet=2



njet=1 or 2



$p_T^\gamma$