

Weekly report

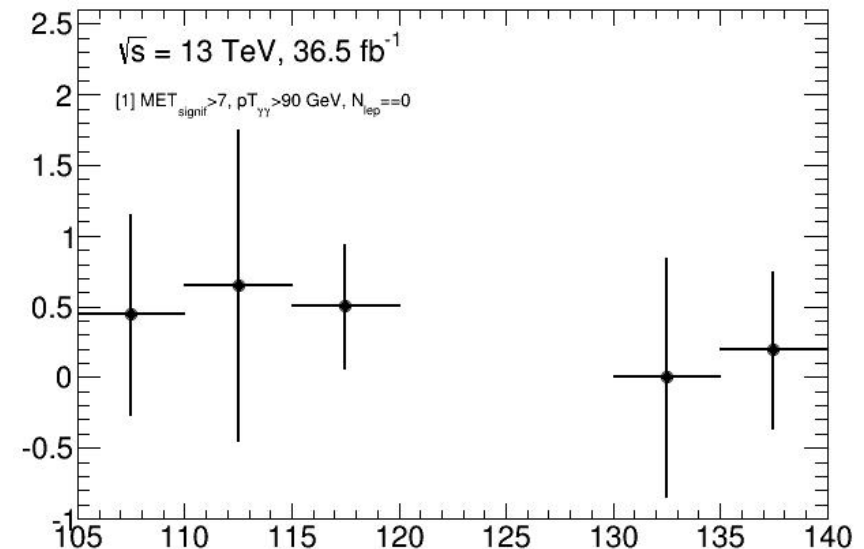
Yu Zhang

12.04

category 1

2

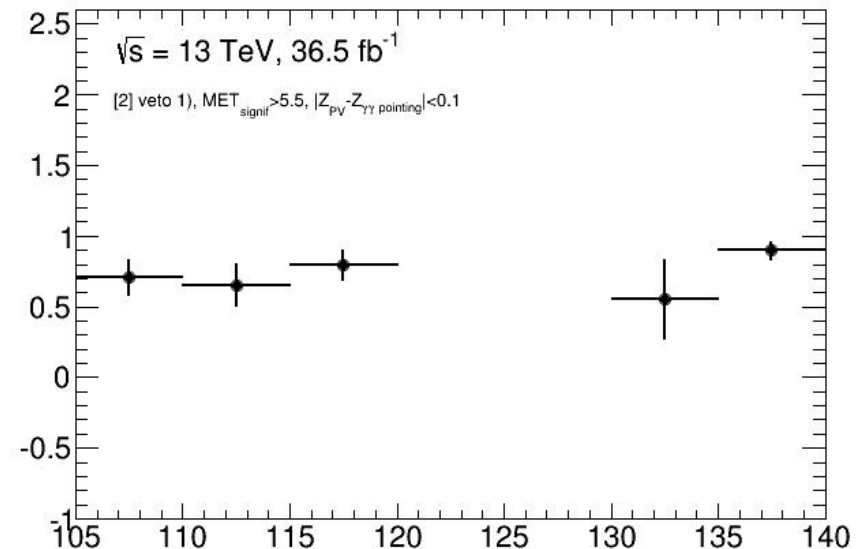
- $\text{MET}_{\text{signif}} > 7$, $pT_{\gamma\gamma} > 90$ GeV, $N_{\text{lep}} == 0$
- inclusive, GG : $\gamma\gamma$, GJ : γ +jet, JG : jet+ γ , JJ : jet-jet
- WGGTITI = **32.6595** +/- 10.5199 (stat) + 15.8631 - 0 (syst)
- WGJTITI = **12.5045** +/- 6.47665 (stat) + 0 - 12.4966 (syst)
- WJGTITI = **6.57356** +/- 3.3481 (stat) + 2.83306 - 3.80548 (syst)
- WJJTITI = **2.30119** +/- 1.85136 (stat) + 1.03445 - 2.29979 (syst)
- PURITYTITI = **0.604371** +/- 0.175963 (stat) + 0.295006 - 0 (syst)



category 2

3

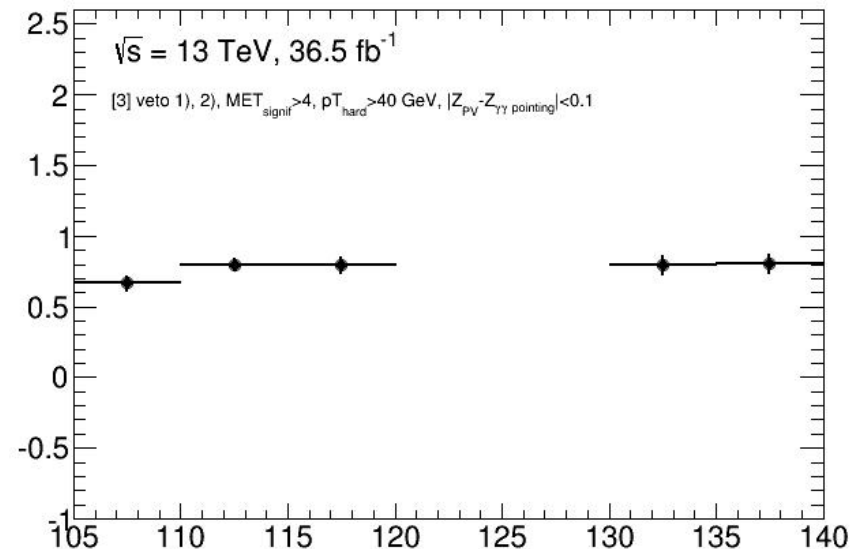
- veto cat1, $\text{MET}_{\text{signif}} > 5.5$, $|\mathbf{Z}_{\text{PV}} - \mathbf{Z}_{\gamma\gamma}| < 0.1$
- inclusive, GG : $\gamma\gamma$, GJ : $\gamma + \text{jet}$, JG : $\text{jet} + \gamma$, JJ : jet-jet , GJJG : $\gamma\text{j} + \text{j}\gamma$
- WGGTITI = **233.273** +/- 21.8418 (stat) + 8.96155 - 52.2652 (syst)
- WGJTITI = **48.6913** +/- 8.77513 (stat) + 37.9188 - 7.72578 (syst)
- WJGTITI = **31.5818** +/- 7.42212 (stat) + 18.3618 - 0 (syst)
- WJJTITI = **5.78374** +/- 2.64162 (stat) + 0 - 5.63265 (syst)
- PURITYTITI = **0.730508** +/- 0.0511227 (stat) + 0.0232829 - 0.160786 (syst)



category 3

4

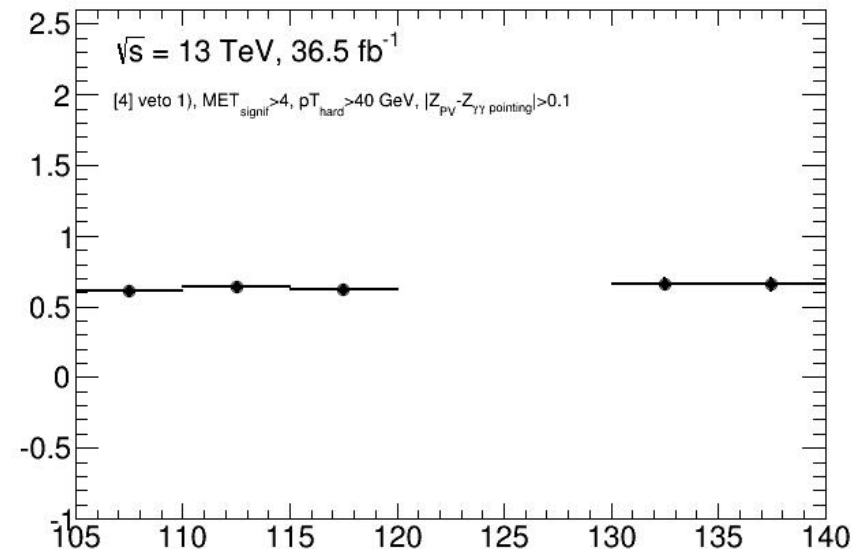
- veto cat1, cat2, $\text{MET}_{\text{signif}} > 4$, $p_{T_{\text{hard}}} > 40 \text{ GeV}$, $|\mathbf{Z}_{\text{PV}} - \mathbf{Z}_{\gamma\gamma}| < 0.1$
- inclusive, GG : $\gamma\gamma$, GJ : $\gamma + \text{jet}$, JG : $\text{jet} + \gamma$, JJ : jet-jet , GJJG : $\gamma j + j$
- WGGTITI = **1627.69** +/- 54.9885 (stat) + 28.0411 - 100.765 (syst)
- WGJTITI = **260.253** +/- 21.4571 (stat) + 78.7494 - 26.2055 (syst)
- WJGTITI = **135.08** +/- 16.9399 (stat) + 18.1061 - 0 (syst)
- WJJTITI = **42.8993** +/- 7.11007 (stat) + 0 - 1.98698 (syst)
- PURITYTITI = **0.787875** +/- 0.0186429 (stat) + 0.0132324 - 0.0469849 (syst)



category 4

5

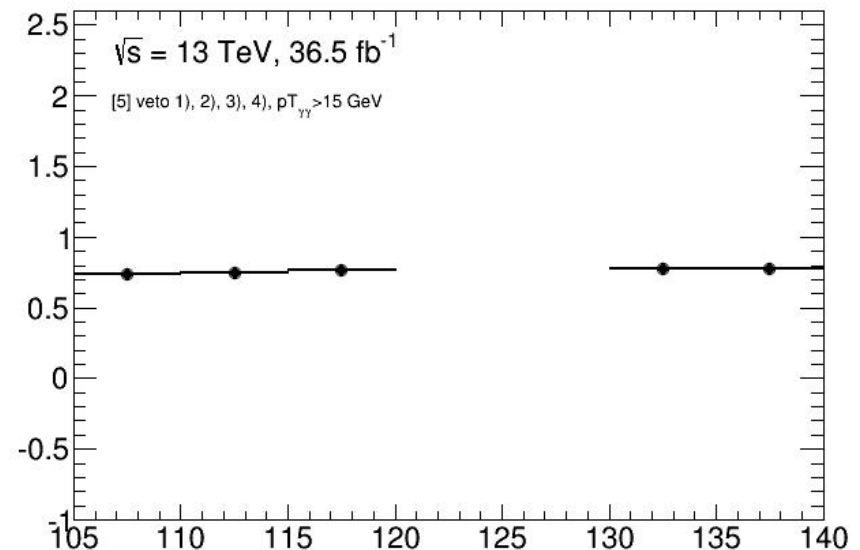
- veto cat1, cat2, cat3, $\text{MET}_{\text{signif}} > 4$, $pT_{\text{hard}} > 40 \text{ GeV}$, $|Z_{\text{PV}} - Z_{\gamma\gamma}| < 0.1$
- inclusive, GG : $\gamma\gamma$ GJ : $\gamma + \text{jet}$ JG : $\text{jet} + \gamma$ JJ : jet-jet GJJG : $\gamma j + j\gamma$
- WGGTITI = **4826.43** +/- 110.74 (stat) + 119.378 - 210.913 (syst)
- WGJTITI = **1447.25** +/- 48.9609 (stat) + 137.799 - 0 (syst)
- WJGTITI = **888.025** +/- 39.5669 (stat) + 111.774 - 160.654 (syst)
- WJJTITI = **367.487** +/- 17.5709 (stat) + 183.847 - 36.0357 (syst)
- PURITYTITI = **0.641028** +/- 0.0119883 (stat) + 0.0131837 - 0.0280102 (syst)



category 5

6

- veto cat1, cat2, cat3, cat4, $pT_{\gamma\gamma} > 15$ GeV
- inclusive, GG : $\gamma\gamma$, GJ : γ +jet, JG : jet+ γ , JJ : jet-jet, GJJG : $\gamma j + j\gamma$
- WGGTITI = **177642** +/- 586.248 (stat) + 1873.65 - 9016.07 (syst)
- WGJTITI = **31408.8** +/- 236.287 (stat) + 5806.73 - 1666.45 (syst)
- WJGTITI = **15536.3** +/- 184.273 (stat) + 1239.04 - 1723.88 (syst)
- WJJTITI = **5720.57** +/- 79.6717 (stat) + 1690.89 - 296.66 (syst)
- PURITYTITI = **0.771324** +/- 0.00183377 (stat) + 0.00726952 - 0.0382586 (syst)



- Editing three supporting note
 - VBF, WWyy 4jet, yy+MET
- WWyy related check and statistic