

Number of Events

$\mu^+\mu^-, \geq 2 \text{ jets}, \geq 1 \text{ btag}, \geq 1 \gamma$

$\sqrt{s} = 8 \text{ TeV},$

$\mathcal{L}_{\text{dt}} = 19.7 \text{ fb}^{-1}$

**CMS Preliminary**

- + 2012 data
- $t\bar{t} + \gamma$
- $t\bar{t} 0l$
- $t\bar{t} 1l$
- $t\bar{t} 2l$
- Single Top
- Z+Jets
- Z+ $\gamma$
- WW/ZZ/WZ
- W+Jets
- W+ $\gamma$
- QCD

$\Delta R(\gamma, e)$