

Weekly meeting

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3/14/2016

Outline

- Update in framework
- The Kinematic variables comparisons between sideband and MC signal for smhh, between 8TeV and 13TeV for smhh
- Validate the $m_{\gamma\gamma}$ cut eff

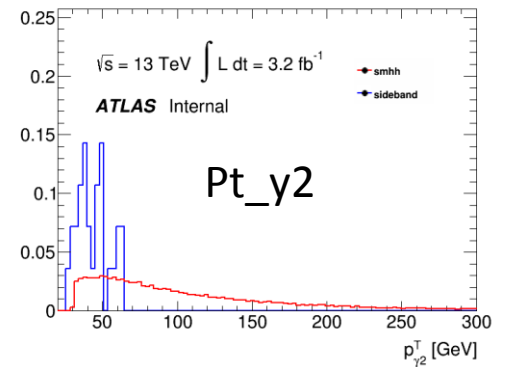
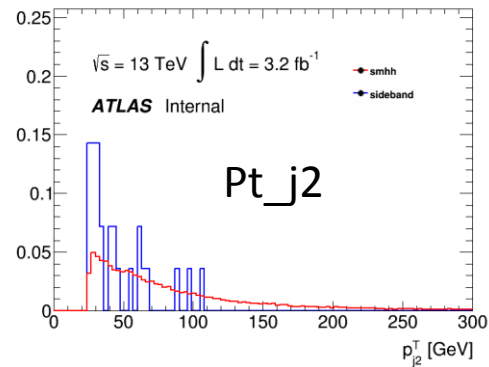
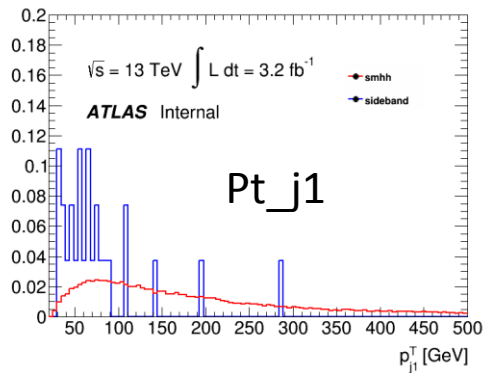
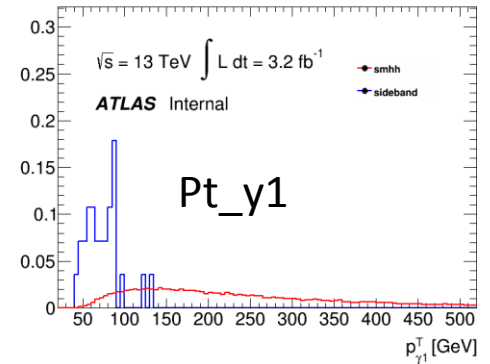
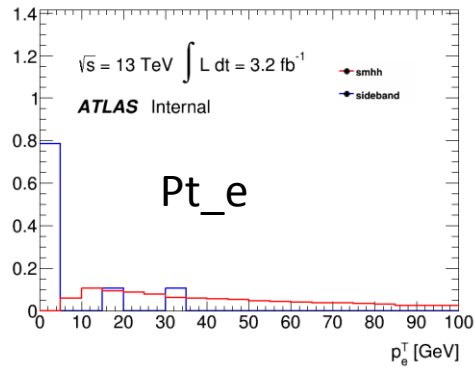
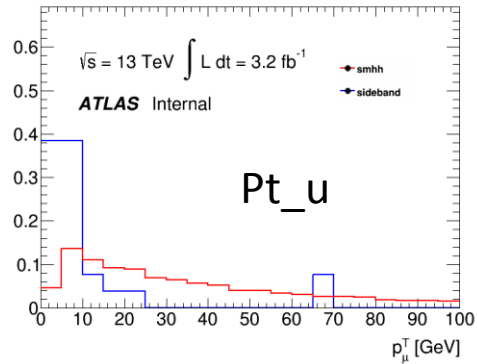
The framework of $WW\gamma\gamma$

- Bveto
- weight()
- EventNumber()

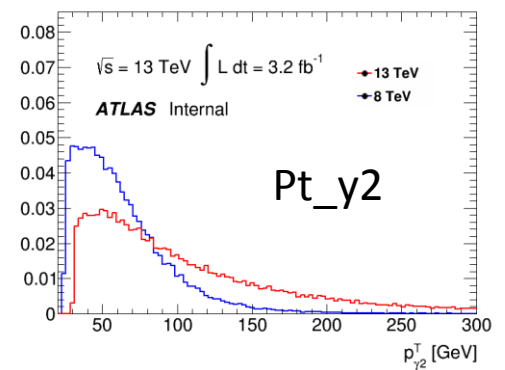
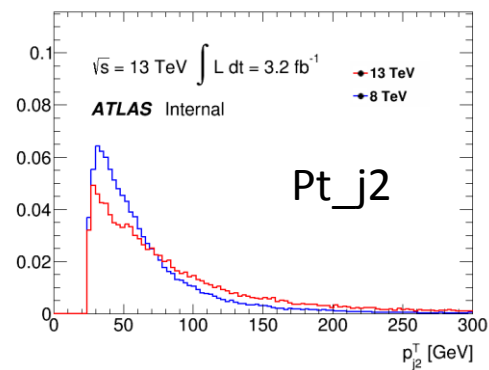
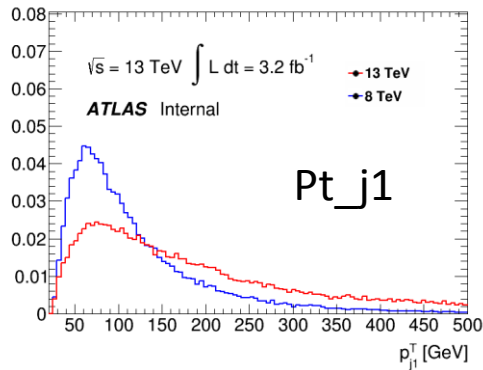
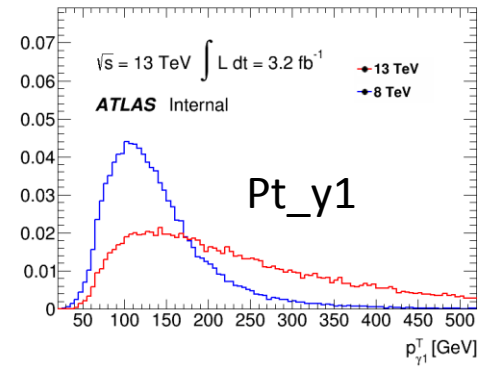
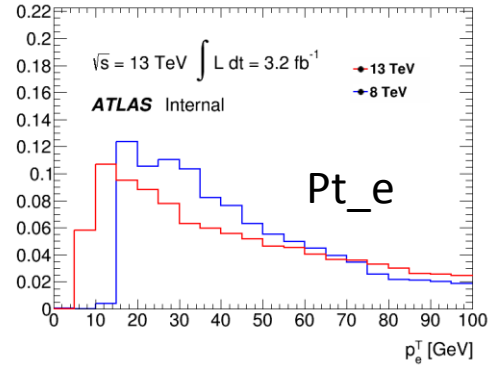
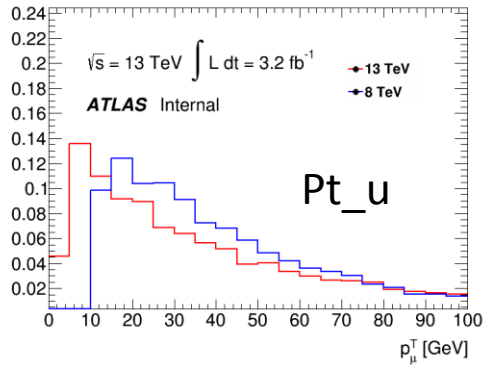
Kinematics comparison

- They are all variables used in run1
 - pt_y1, eta_y1, pt_y2, eta_y2, pt_j1, eta_j1, pt_j2, eta_j2, pt_elec, eta_elec, pt_muon, eta_muon, pt_y1y2, eta_y1y2, pt_j1j2, eta_j1j2, pTt, MET, delta_eta_y1y2, delta_eta_j1j2, min_delta_R_yj, delta_eta_yy_jj, eta_zeppenfeld
 - No powerful variable observed.

Comparison - sideband VS MC signal



comparison - 8TeV VS 13TeV



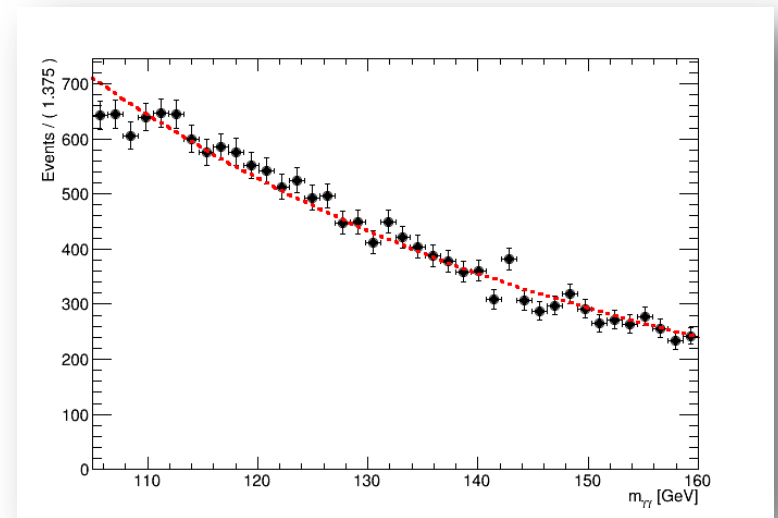
Validate the $\epsilon_{\gamma\gamma}^B$

- $\gamma\gamma jj$ sample from HGamma

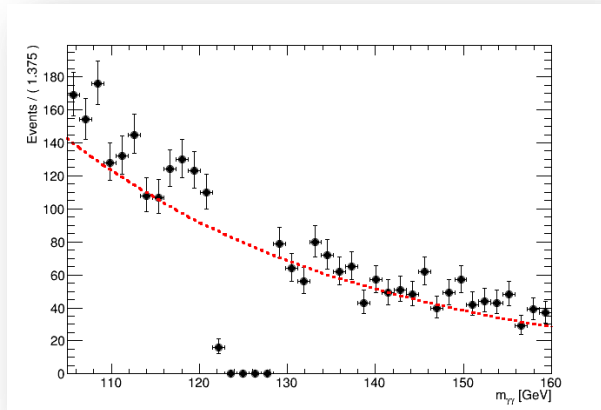
$$-\epsilon_{\gamma\gamma}^B = 0.1364$$

- from sideband

$$-\epsilon_{\gamma\gamma}^B = 0.1384$$



Checking the dependency of objects
using $\gamma\gamma jj$



← Sideband

To-do list

- Derivation of $\gamma\gamma lvjj$ sample
- Update the framework
- Validation of resonant samples
- Get the systematics
- Generate the $lvjj$ sample

Back Up

