

# Status Report

2015. 12. 14

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# Action Item

- Background Estimation (update)
  - Normalization Factor (luminosity update)
  - Numbers
  - THStack
- Efficiency-mass plot
- Cross Section update

# Normalization Factor

	$\sigma$	$N_{total}$ (weighted)	Norm. Factor	$N_{sel}$ (weighted)	$N_{sel} \cdot F_{norm}$
DYMuMu	2008.4×3	$4.53 \times 10^{11}$	$7.57 \times 10^{-6}$	$4.58 \times 10^{10}$	346706
DYTauTau	2008.4×3	$4.53 \times 10^{11}$	$7.57 \times 10^{-6}$	$2.75 \times 10^7$	208.175
ttbar	831.76	19,900,300	$2.38 \times 10^{-2}$	83,450	1985
WW	118.7	994,416	$6.79 \times 10^{-2}$	3,476	236
WZ	66.1	999,248	$3.76 \times 10^{-2}$	22,984	865
ZZ	15.4	996,944	$8.79 \times 10^{-3}$	44,652	392
BG					3686.175
Total					350392.175
Data					350665

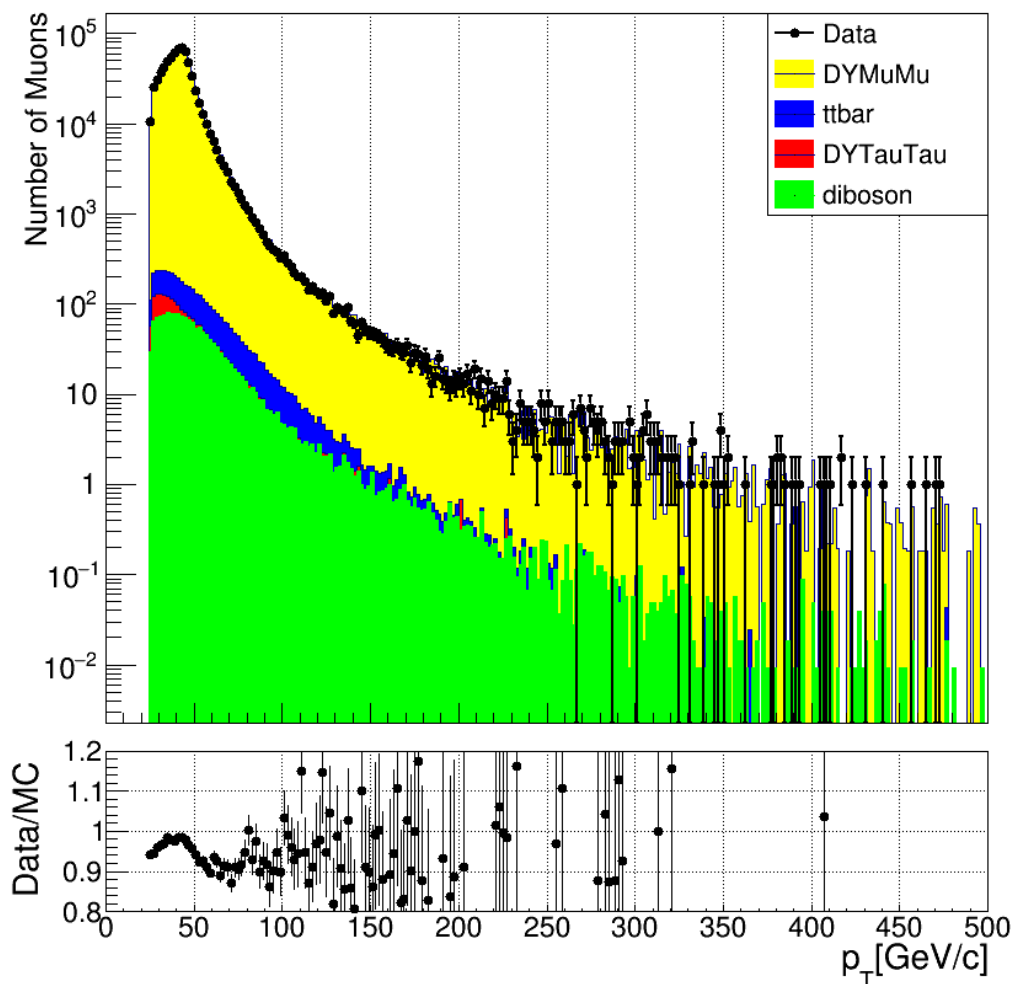
$$Normalization\ Factor = \frac{L \times \sigma}{N_{total}}$$

$$N_{sig} = (N_{sel} - N_{BG}) \times 0.97$$

$$= 336569$$

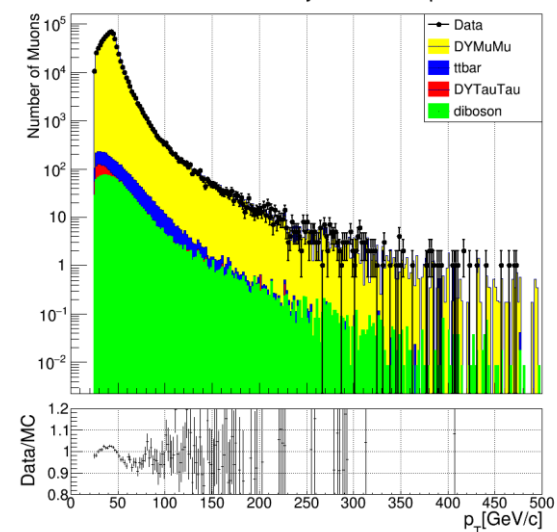
# THStack $p_T$

CMS Preliminary L=593pb<sup>-1</sup>



DYMuMu	346706
ttbar	1985
DYTauTau	208.175
Diboson	1493

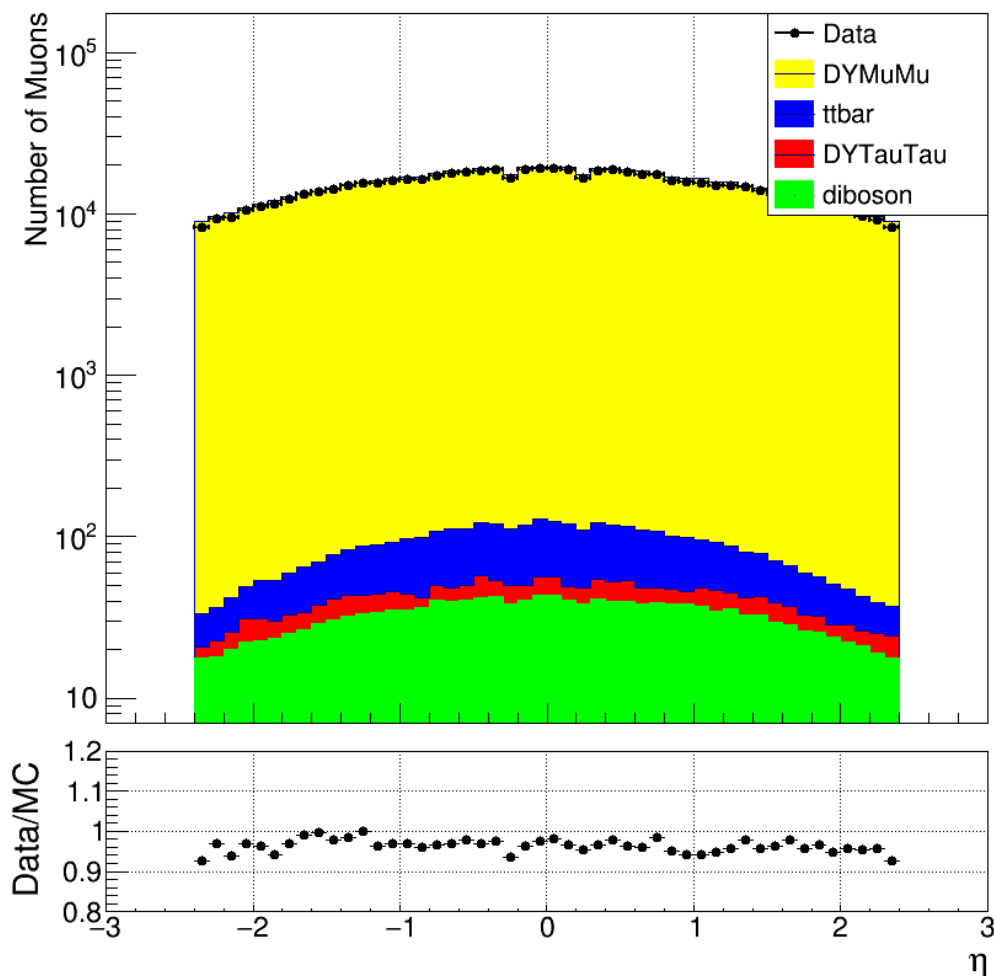
CMS Preliminary L=569.017pb<sup>-1</sup>



(before)

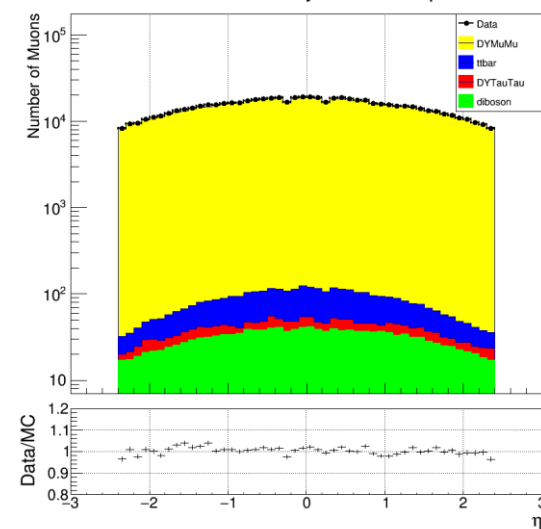
# THStack $\eta$

CMS Preliminary L=593pb<sup>-1</sup>



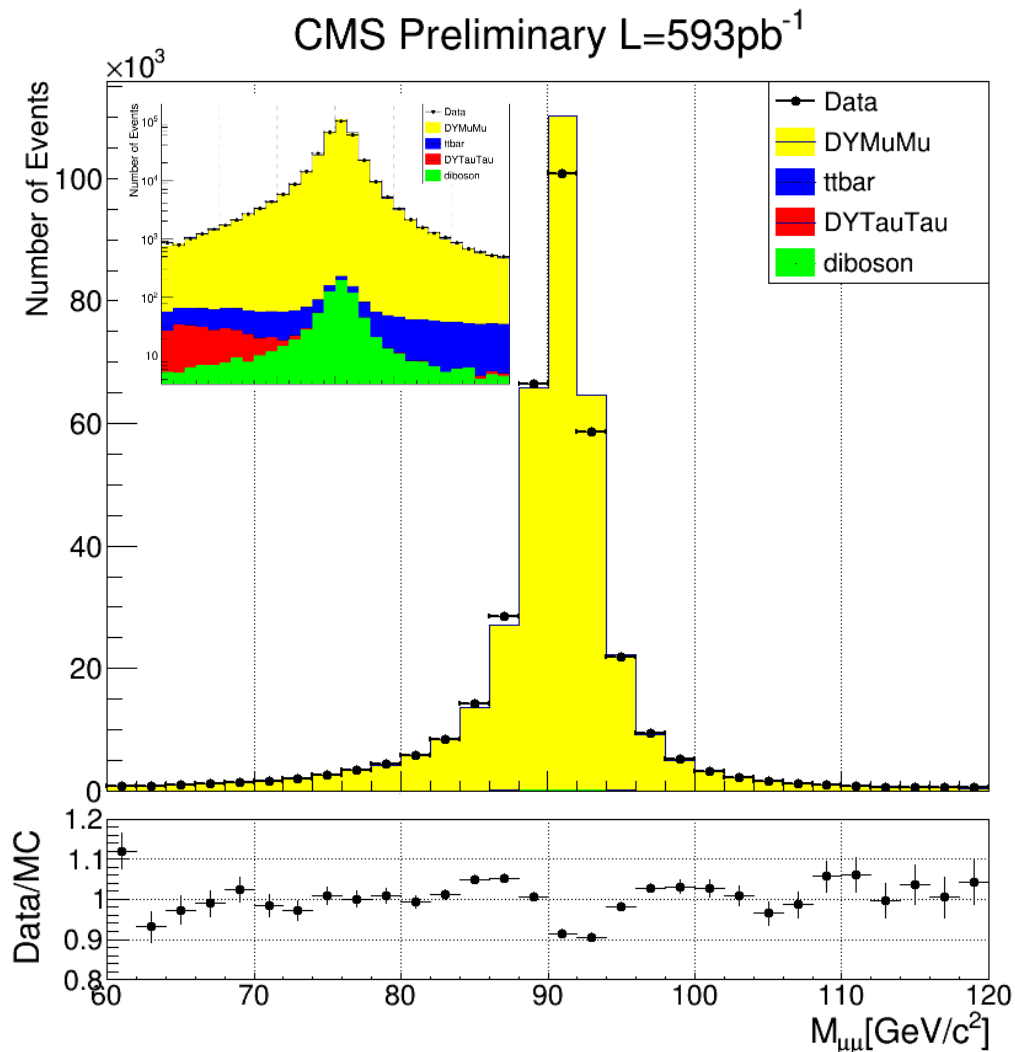
DYMuMu	346706
ttbar	1985
DYTauTau	208.175
Diboson	1493

CMS Preliminary L=569.017pb<sup>-1</sup>



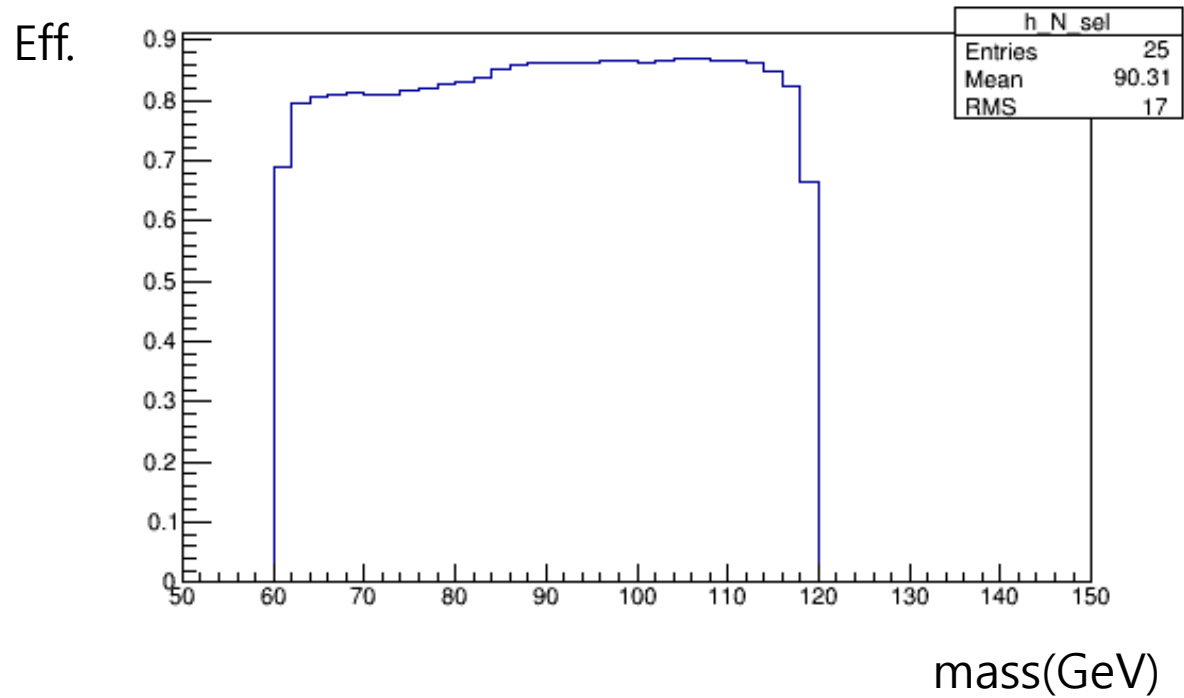
(before)

# THStack mass

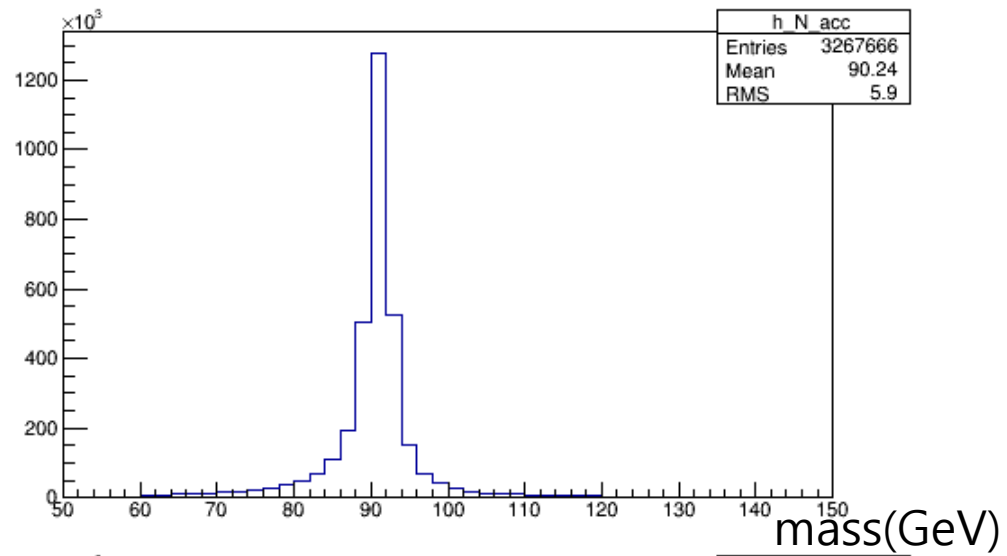


DYMuMu	173353
ttbar	992.5
DYTauTau	104.088
Diboson	746.5

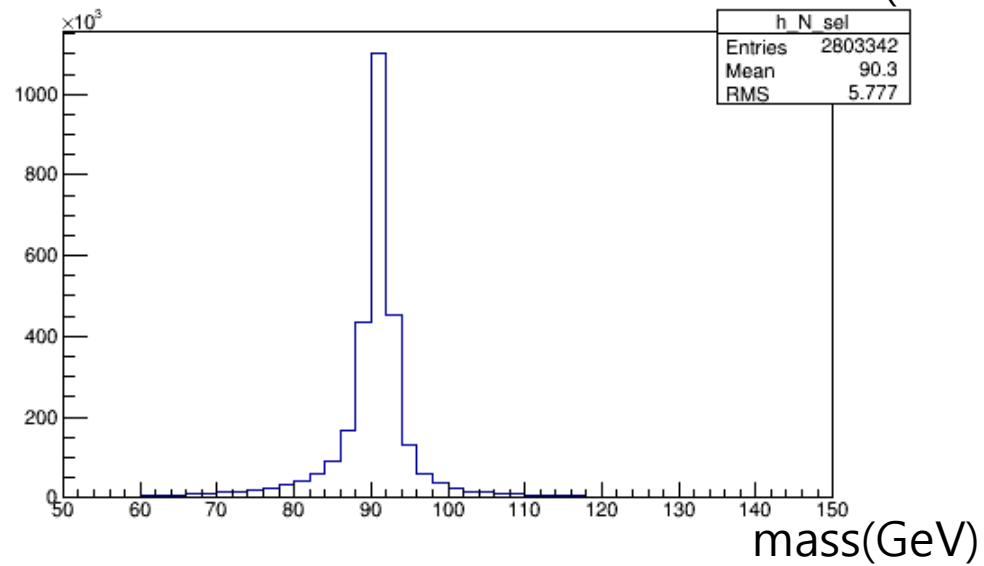
# Efficiency-mass plot



Accepted events



Selected event:





# Cross section update

- Luminosity = 592.563
- Acceptance = 0.359
- Efficiency = 0.858
- $\sigma = 1844.051 \pm 3.788(stat.) \pm 184.405(lum.)$
- ( $\sigma_{th} = 1868$ )