



National University
SOKENDAI
The Graduate University for Advanced Studies



ATLAS Osaka Meeting

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SOKENDAI (The Graduate University for Advanced Studies)

2017 / 6 / 9

Background

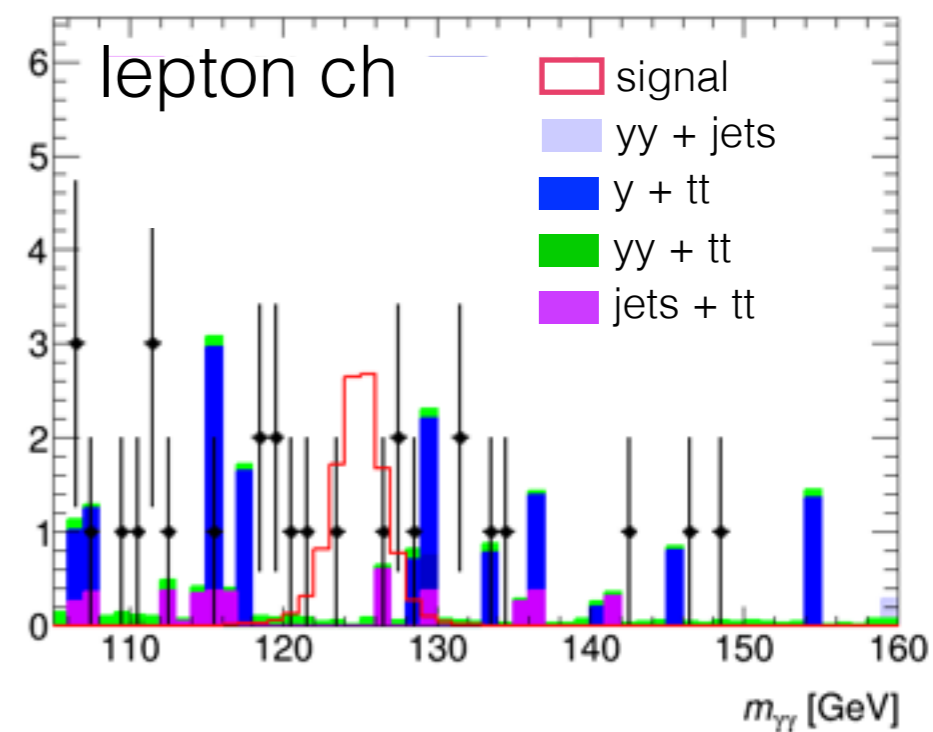
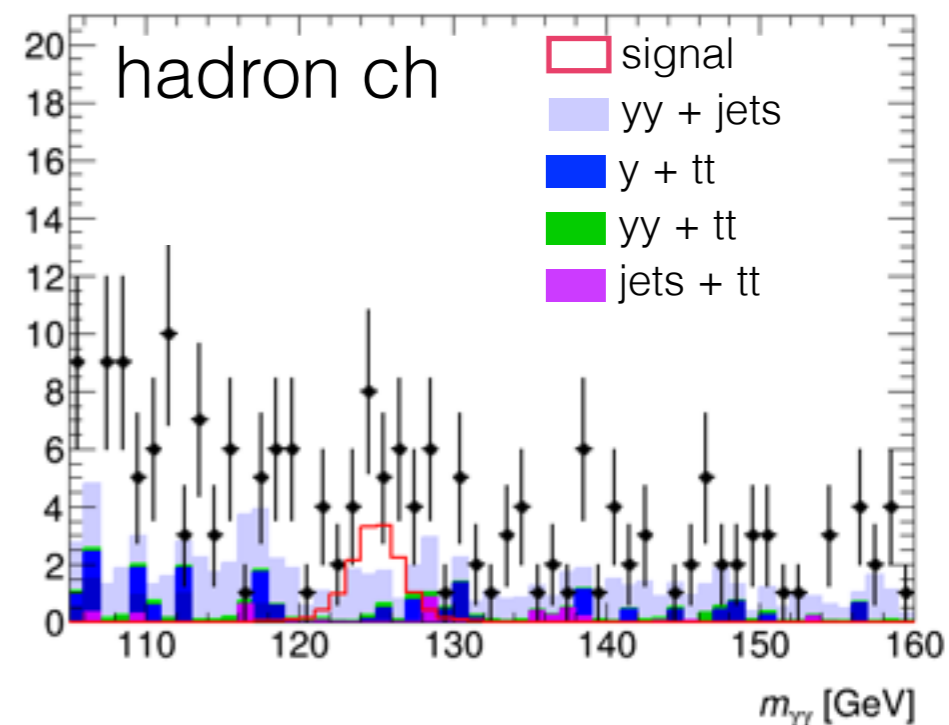
- 従来のevent selectionをすべてかけたあと

- hadron ch: 終状態にleptonを含まない

- lepton ch: 終状態にleptonを含む

- MC, dataは合っていないが...

- ▶ 右図の4 processはBGに入ってきてそう。
ひとまずこれらとsignal MCを比較



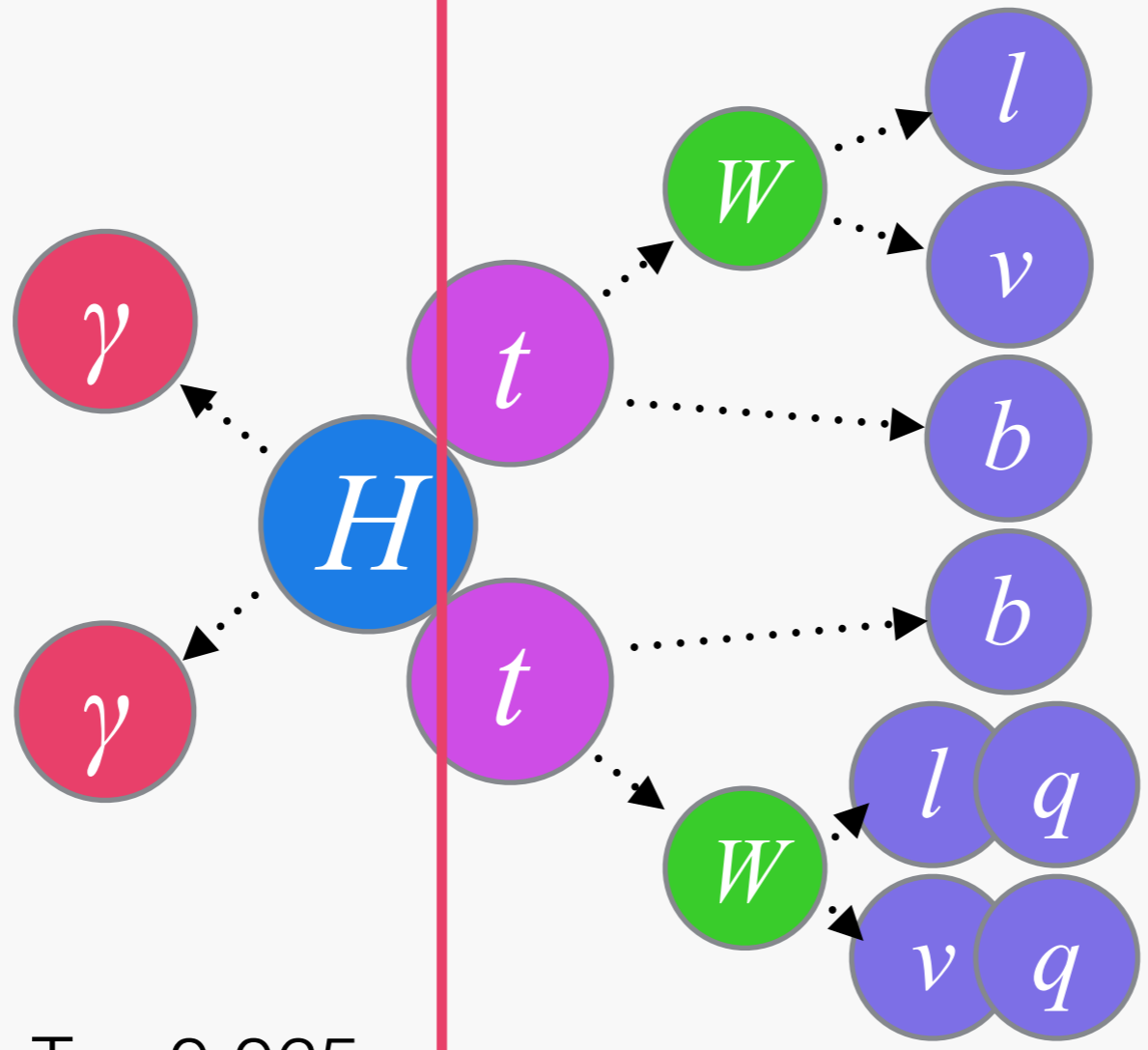
Event Selection

$p_T > 35 \text{ GeV}$
 $p_T / m_{\gamma\gamma} > 0.35$

$p_T > 25 \text{ GeV}$
 $p_T / m_{\gamma\gamma} > 0.25$

+Isolation:
 $\text{topoetcone20} / p_T < 0.065$
 $\text{ptcone20} / p_T < 0.05$

+Tight ID



lepton (e or μ) 1個以上
($p_T > 10 \text{ GeV}$)

jet 2個以上
($p_T > 25 \text{ GeV}$),
b-tag jet 1個以上

今週はphoton selectionに注目

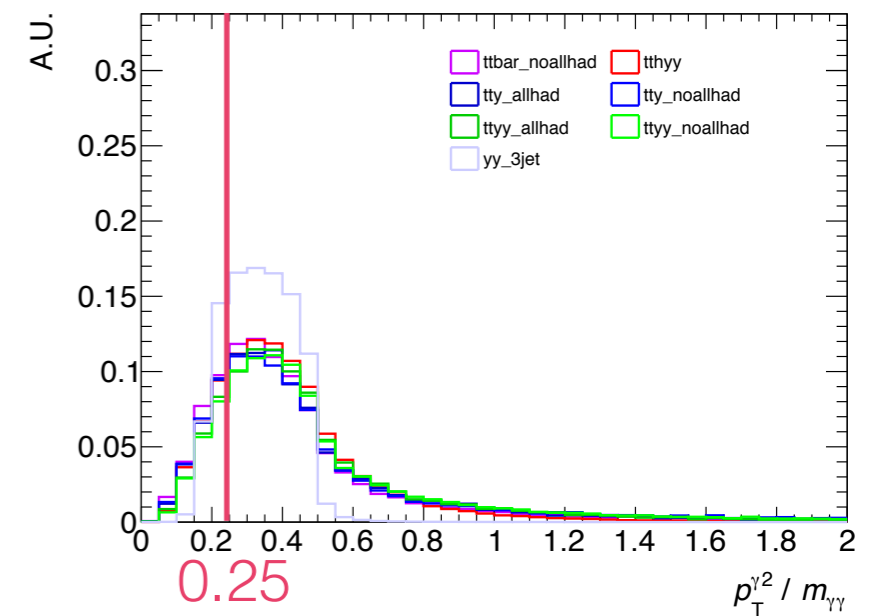
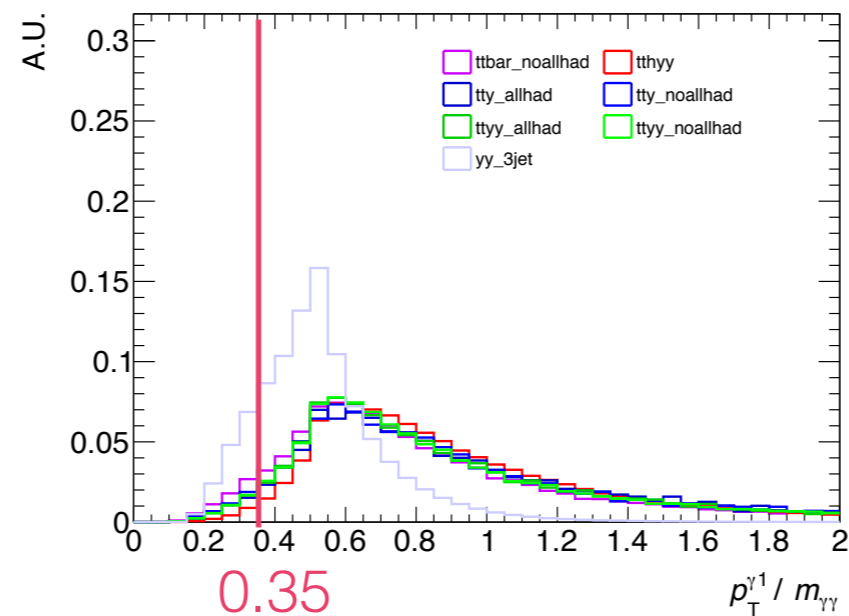
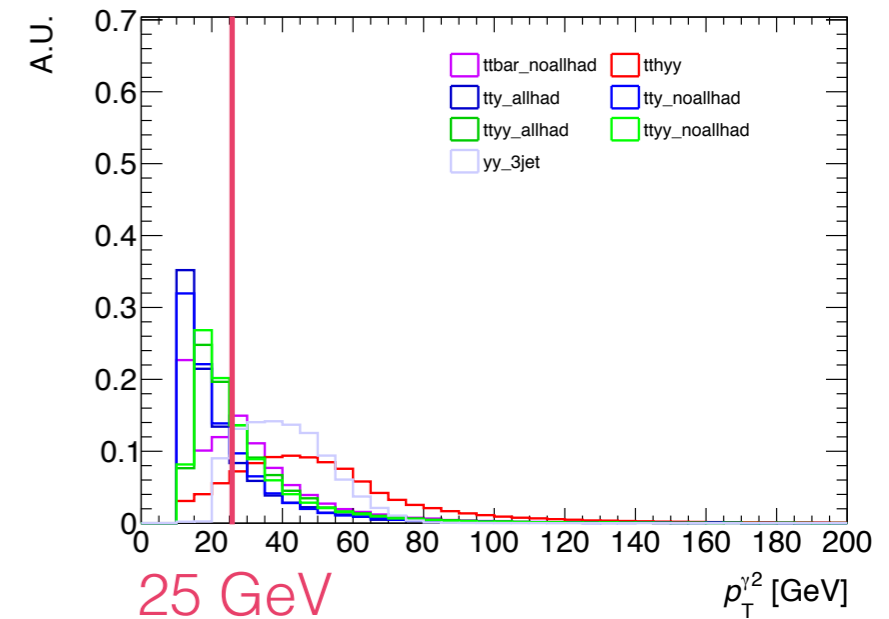
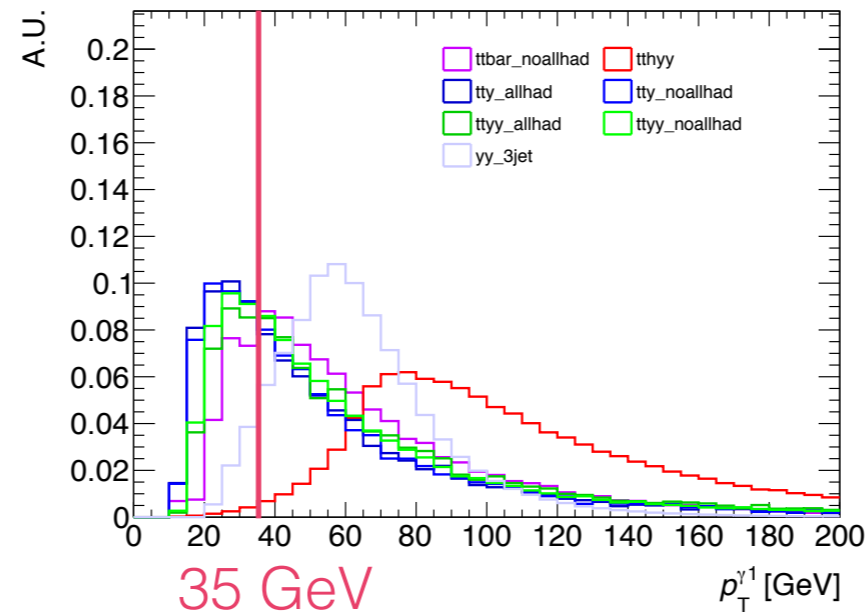
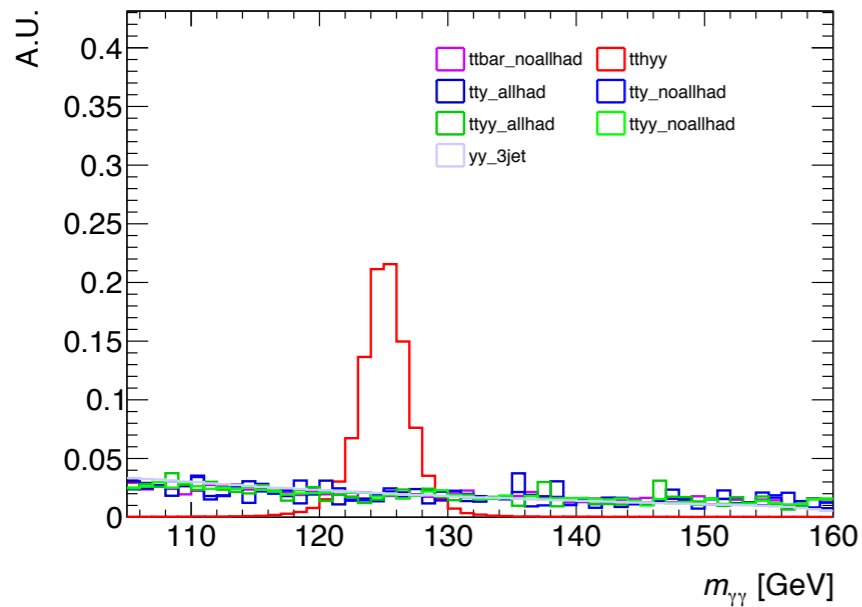
pT Cut

- $p_{T_{y1}} > 35 \text{ GeV}$, $p_{T_{y2}} > 25 \text{ GeV}$

→ 特にleading photonのカットはloose

→ low pT regionを作るならpT threshold を上げる手も?

offline cutなし



Backup