

Super-short update

Single top $tH \rightarrow$ same sign dilepton

Object and event selection

- Lepton selection :
 - $p_T > 10 \text{ GeV}$, $|\eta| < 2.5$,
 - Combined isolation (cone of 0.4) < 0.2 for both electrons and muons.
- Jet selection :
 - $p_T > 30 \text{ GeV}$, $|\eta| < 2.5$, $E_{\text{EoberHE}} < 0.3$,
 - Remove selected leptons from the jet collection.
 - Btagging : loose WP.
- Charge mis-reconstruction of electrons 0.3 % in the endcap, 0.03 % in the barrel (from ttH CMS paper).
- Event selection :
 - Exactly 1 selected leptons,
 - Same sign leptons, leading lepton $p_T > 20 \text{ GeV}$, other lepton $p_T > 20 \text{ GeV}$, $M_{ll} > 12$.
- At least one selected jet.
- Exactly one b-tagged jet.

Cutflows

couplings at current limits

