

weekly report

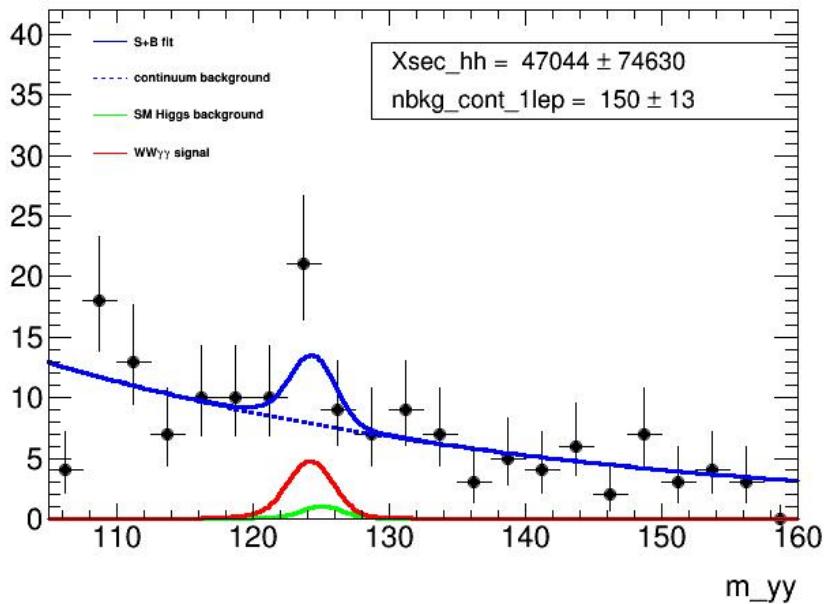
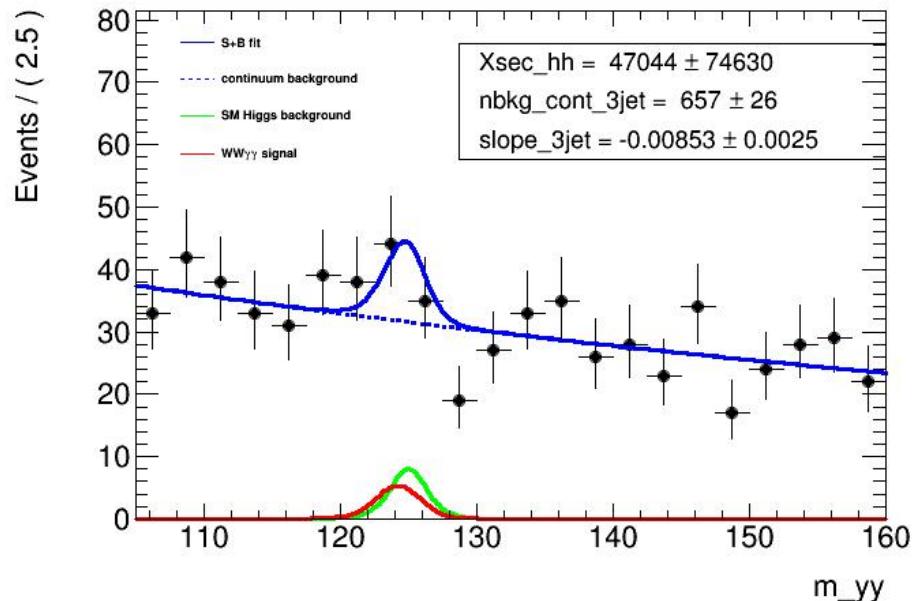
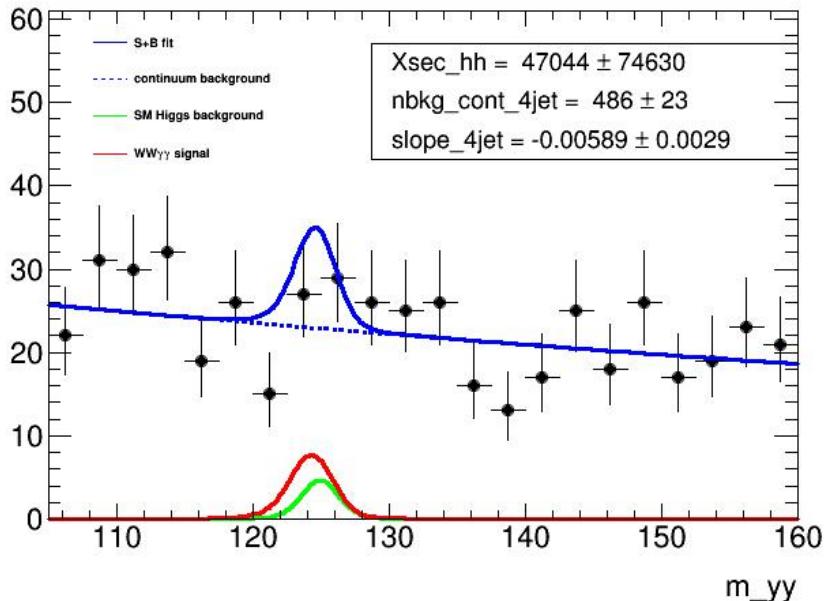
Yu Zhang

11.28

Statistic

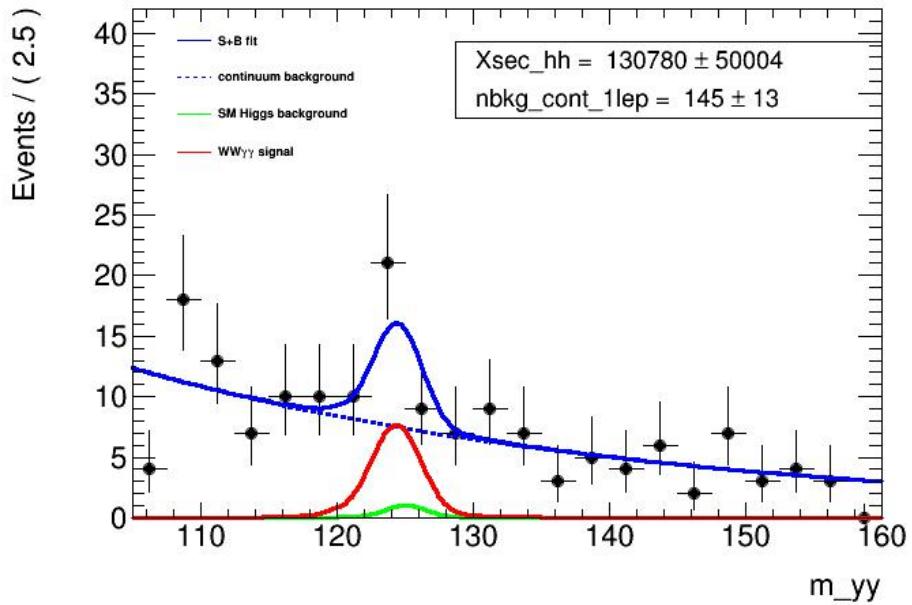
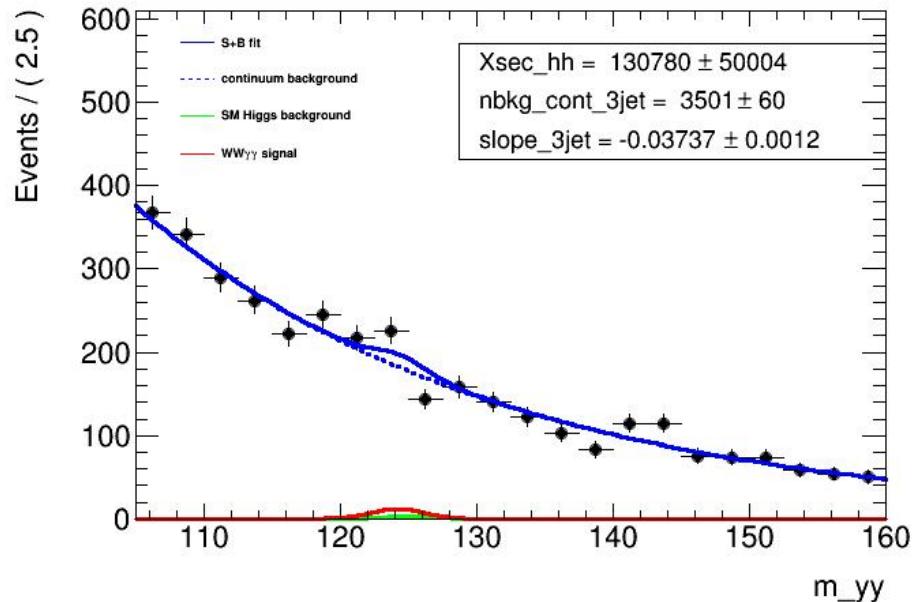
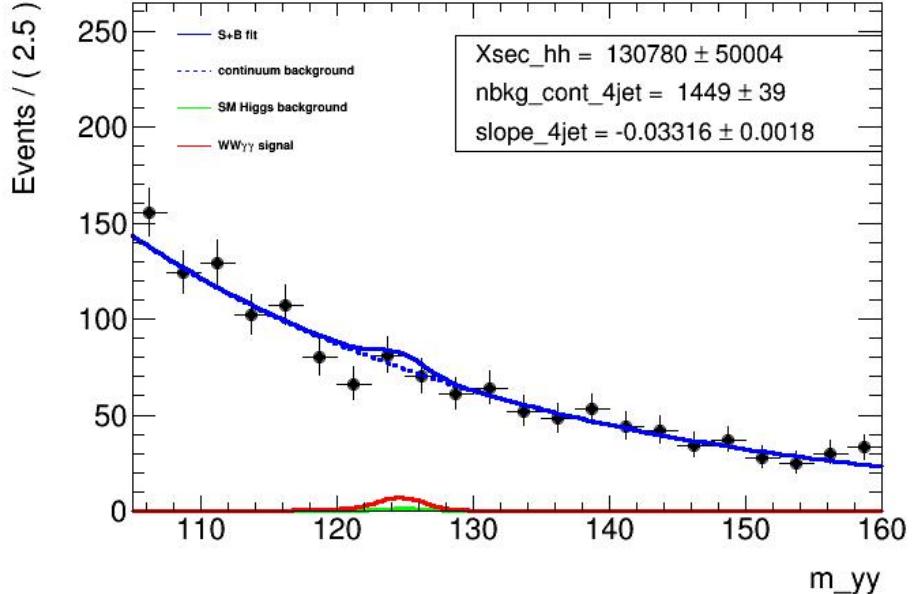
- **WWyy 1 lep**
 - signal : Double-Sided CB
 - sm Higgs : Double-Sided CB
 - continuum : 2nd-exp, fix the parameter to 0-lep CR
- **WWyy full hadronic**
 - 3jet and 4 jet category, mass window and pTyy cut
 - signal : Double-sided CB
 - sm Higgs : CB+GA
 - continuum : exp
- **mh = 125 GeV**
- **Combine the 2 channels (3 categories)**
- **Significance calculation : asymptotic (RooStats : StandardHypoTestDemo)**
- **NO SYSTEMATIC**

non-res



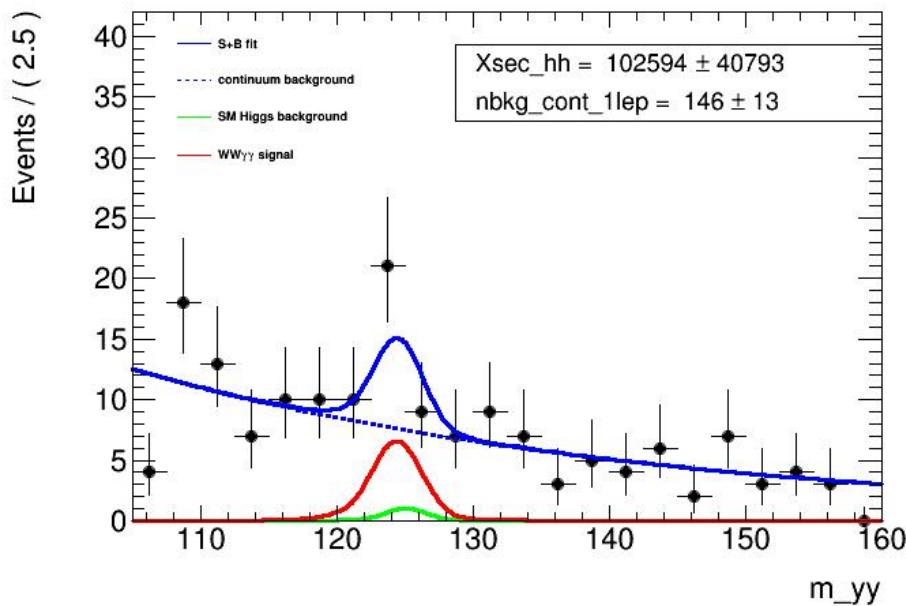
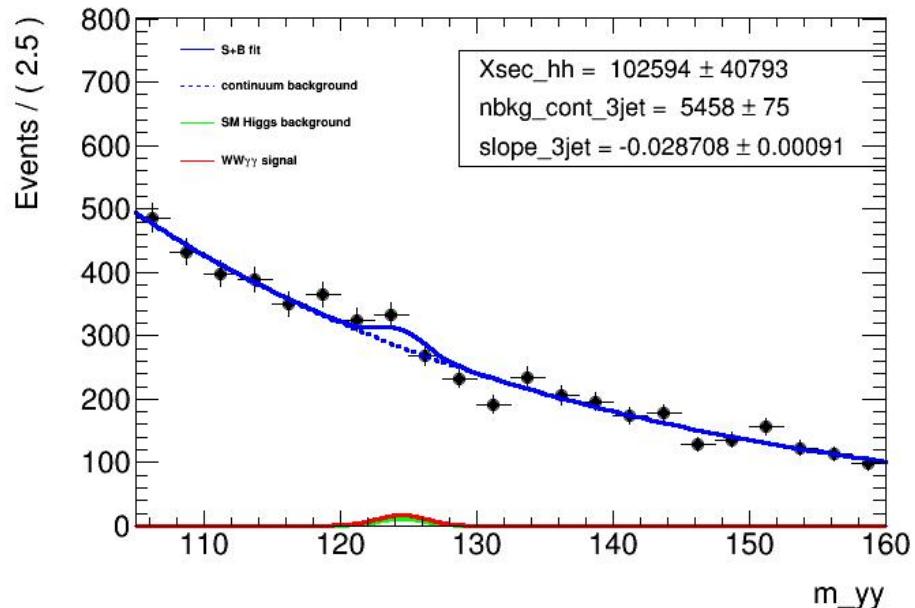
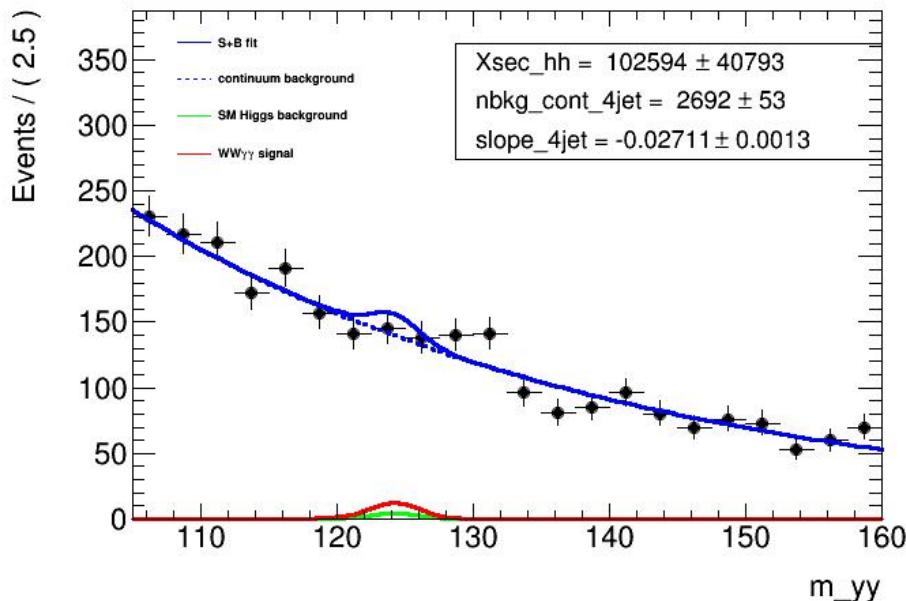
- **Observed significance**
- **2.3312**

mH=260



- Observed significance
➤ 2.86212

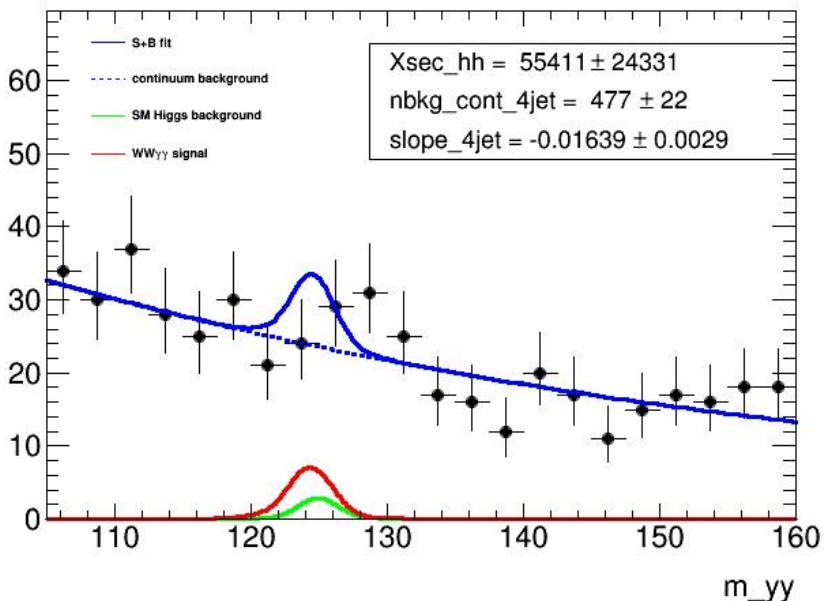
$mH=300$



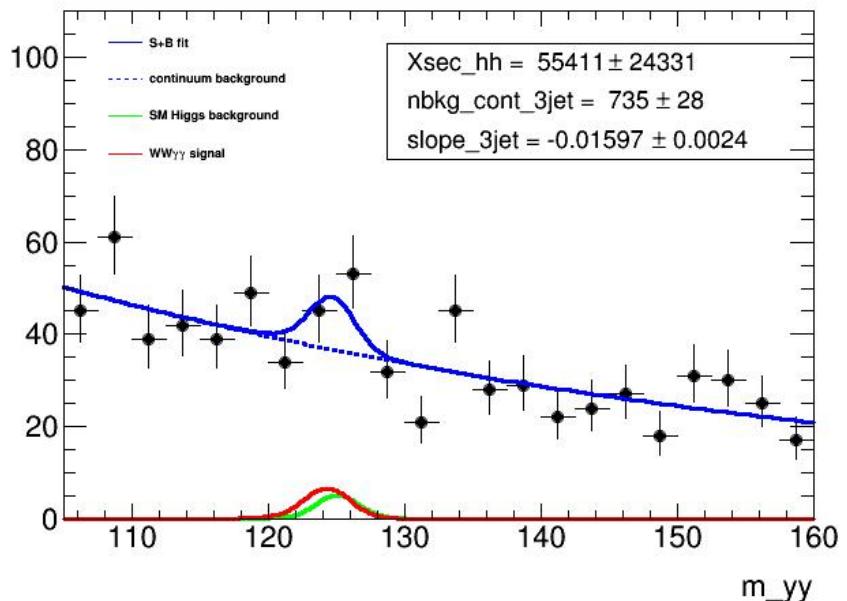
- Observed significance
➤ 2.70833

$mH=400$

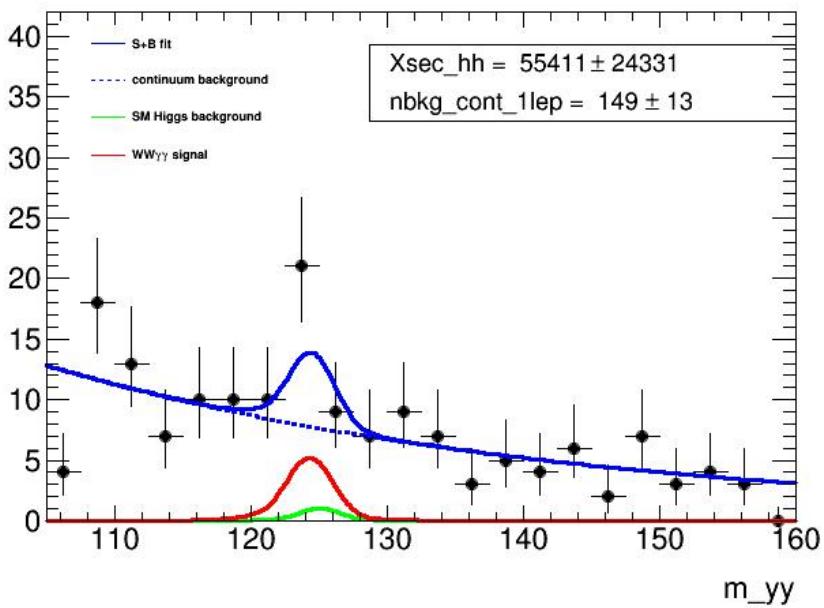
Events / (2.5)



Events / (2.5)

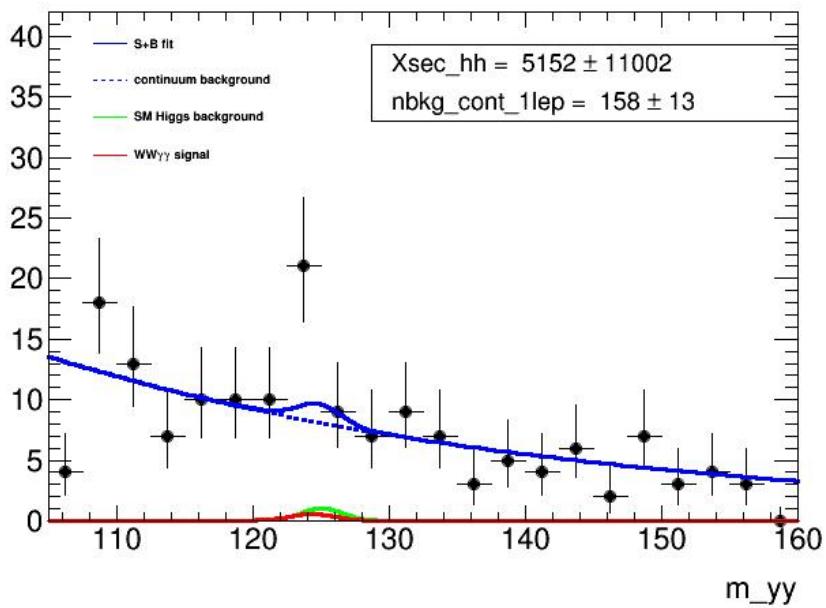
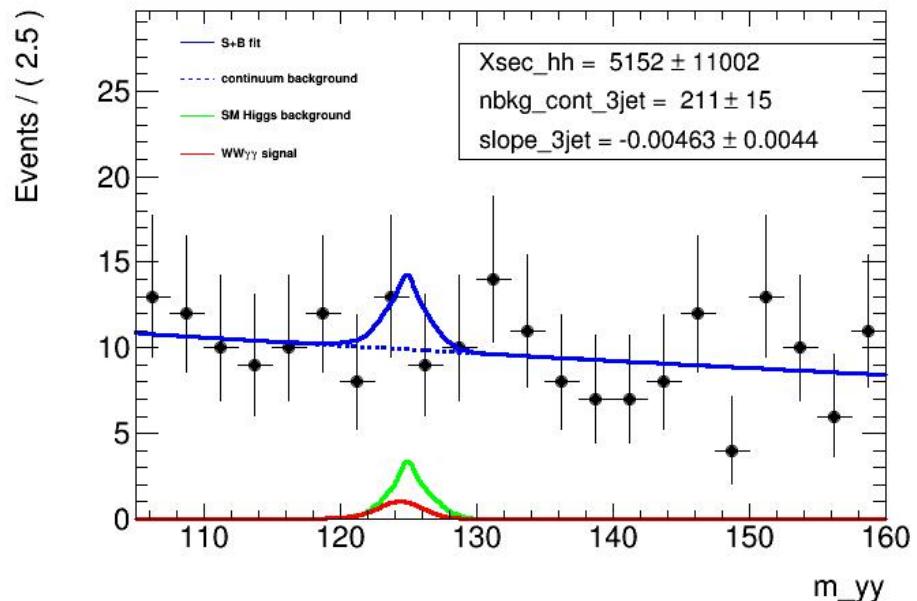
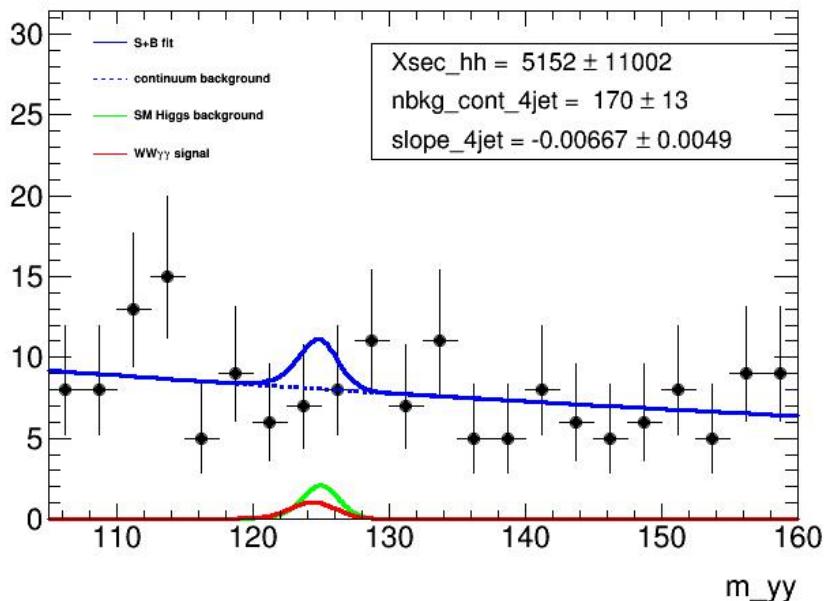


Events / (2.5)



- Observed significance
➤ **2.44422**

$mH=500$



- **Observed significance**

➤ **0.478573**