

Hig2inv progress work

Yuhang

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My work: Draw cut condition distribution of signal and background before cut, in order to confirm our cut condition is reasonable.

Signal: higgs->invisible

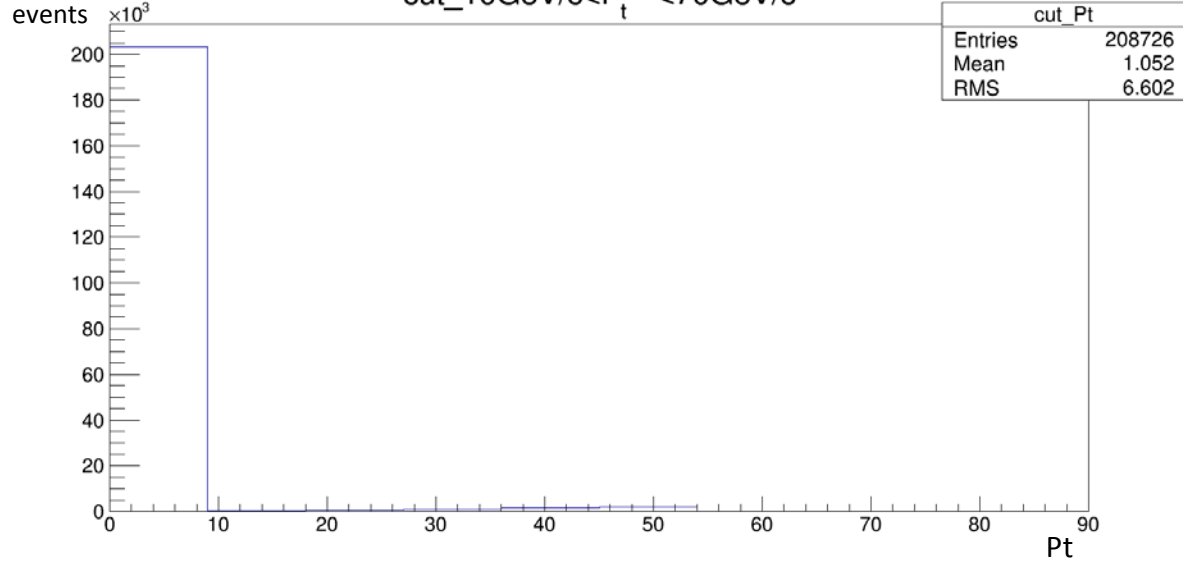
Background: 2 fermion: (1)higgs->qq (2)e+e- ->τ+τ-

4 fermion: (3)e+e- ->ww_||

Signal

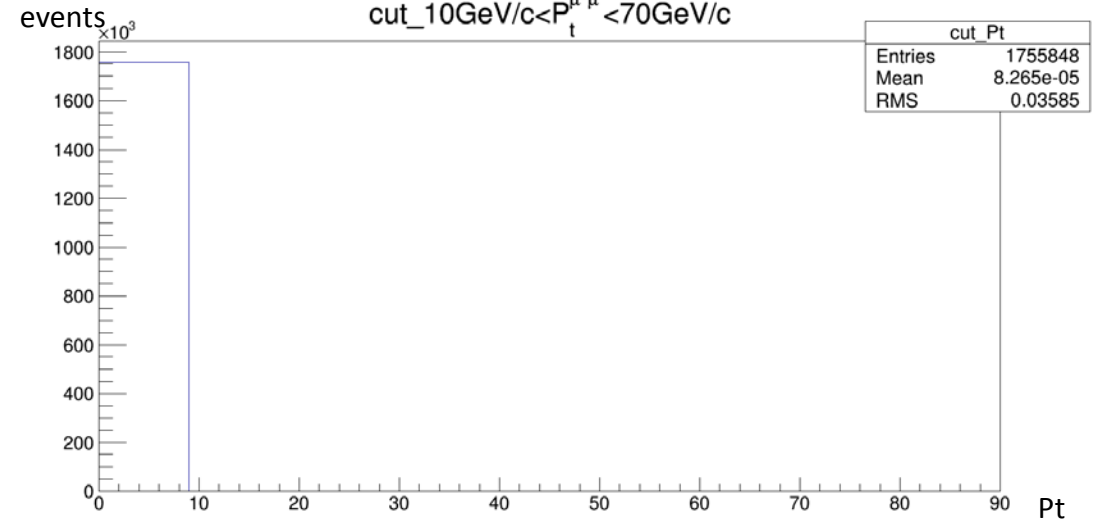
Before cut, Pt distribution :

cut_10GeV/c < $P_t^{\mu^+\mu^-}$ < 70GeV/c



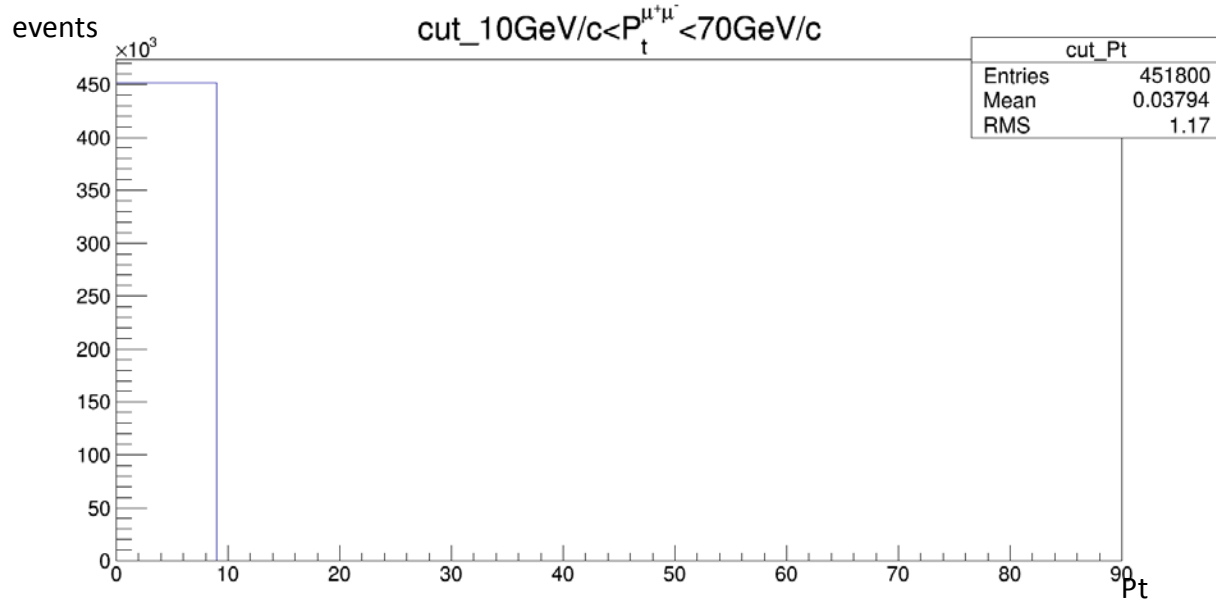
Background: higgs->qq

cut_10GeV/c < $P_t^{\mu^+\mu^-}$ < 70GeV/c



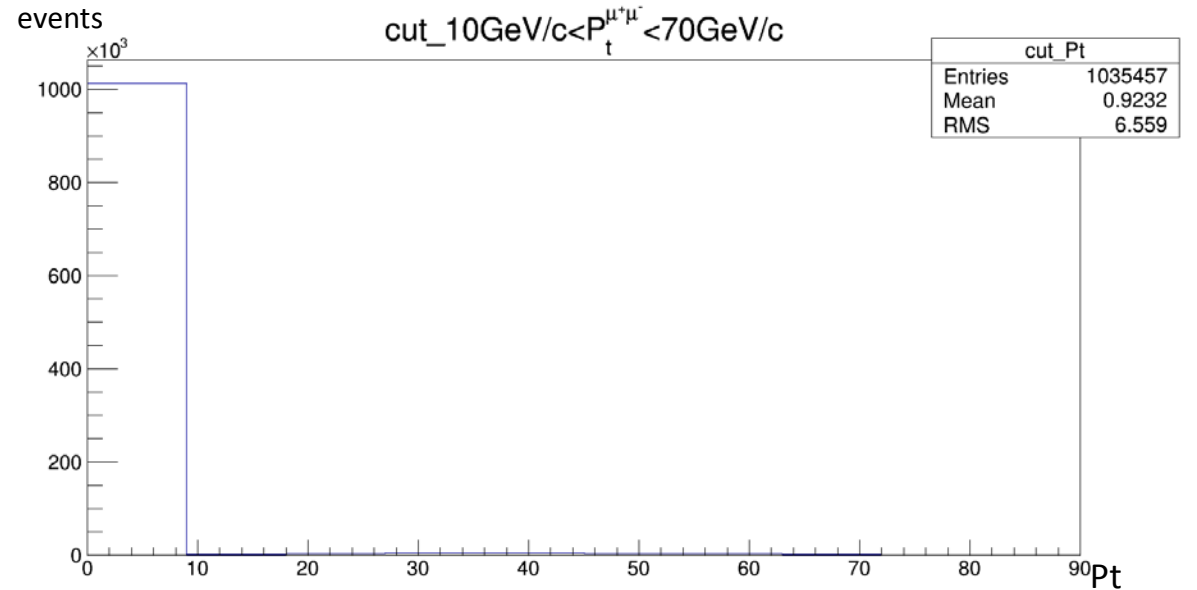
Background: e+e- ->τ+τ-

cut_10GeV/c < $P_t^{\mu^+\mu^-}$ < 70GeV/c



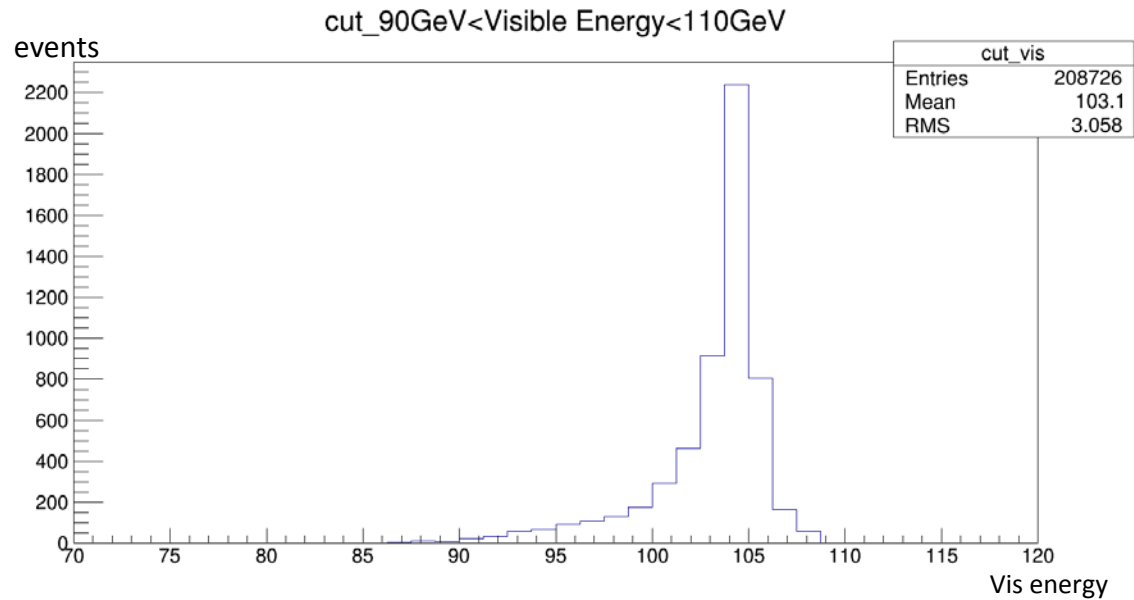
Background: e+e- ->ww_|0|0

cut_10GeV/c < $P_t^{\mu^+\mu^-}$ < 70GeV/c

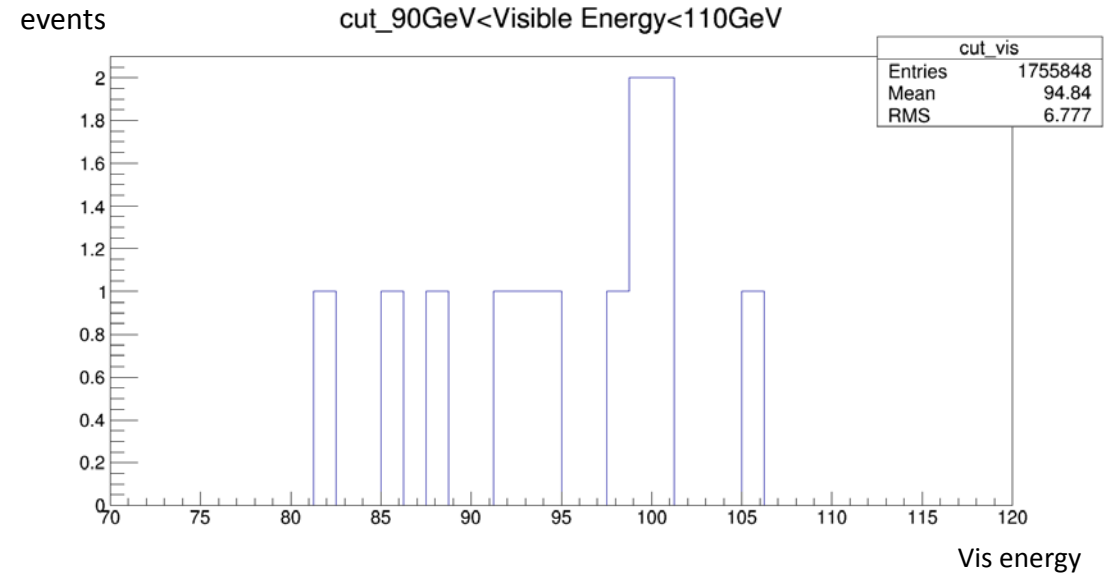


Before cut visible energy distribution:

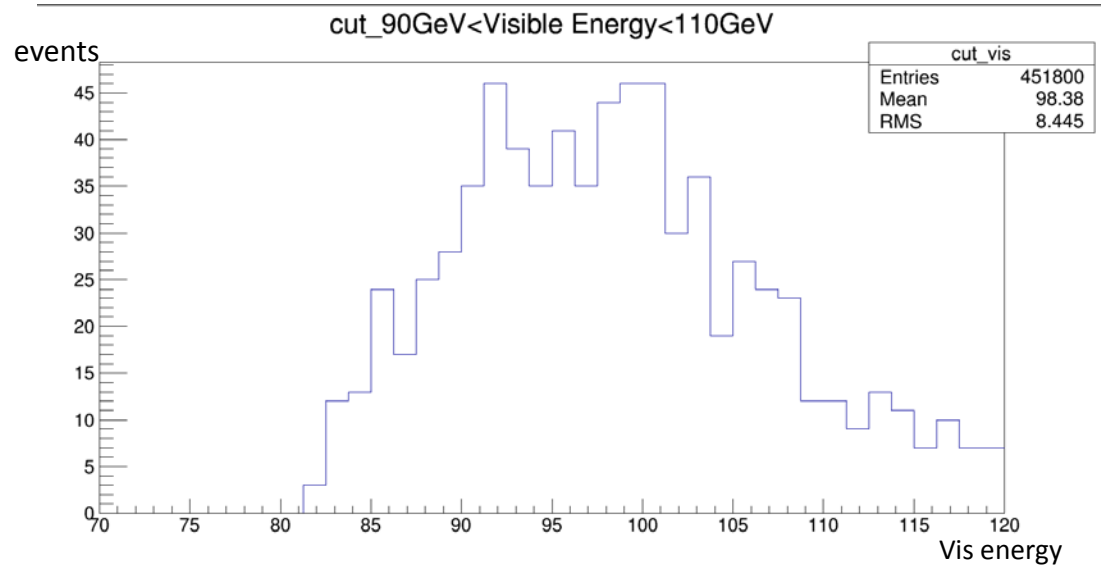
Signal



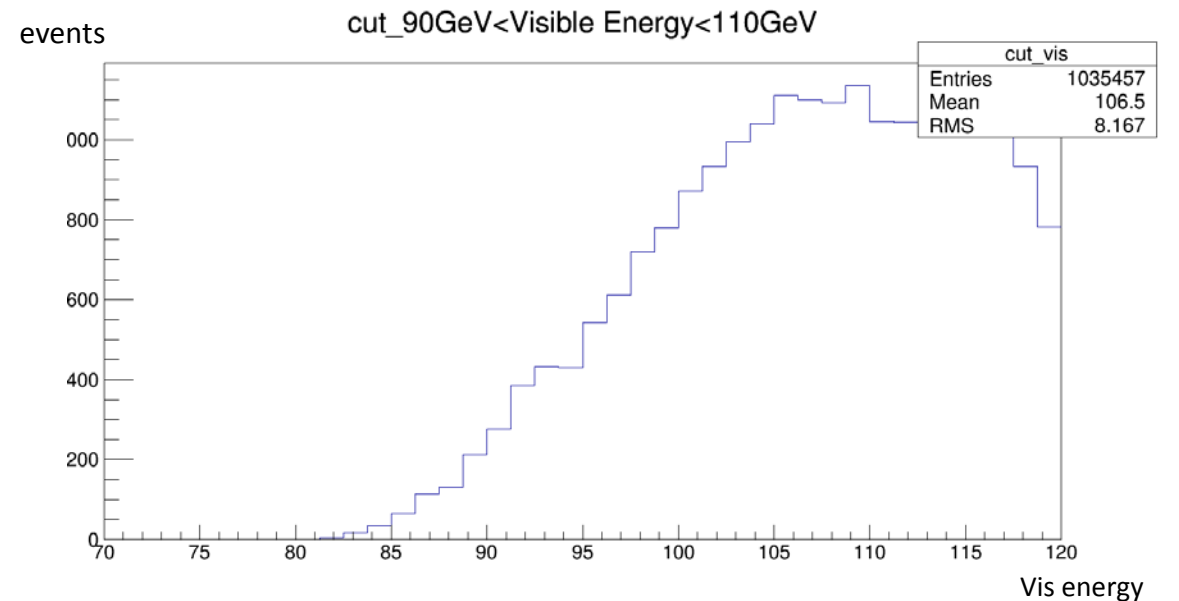
Background: higgs->qq



Background: e+e- ->τ+τ-

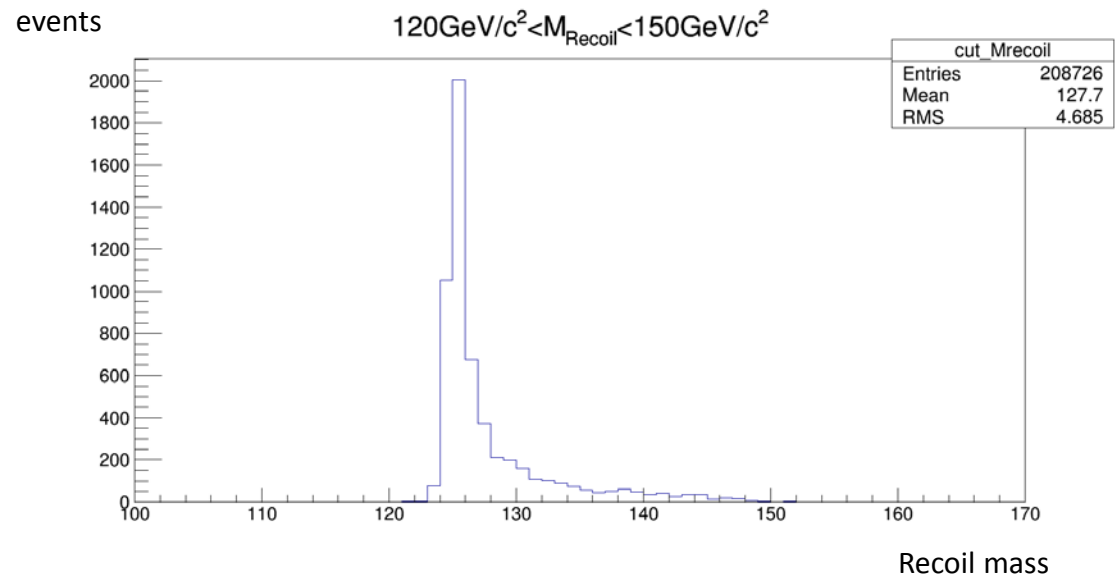


Background: e+e- ->ww_||0||

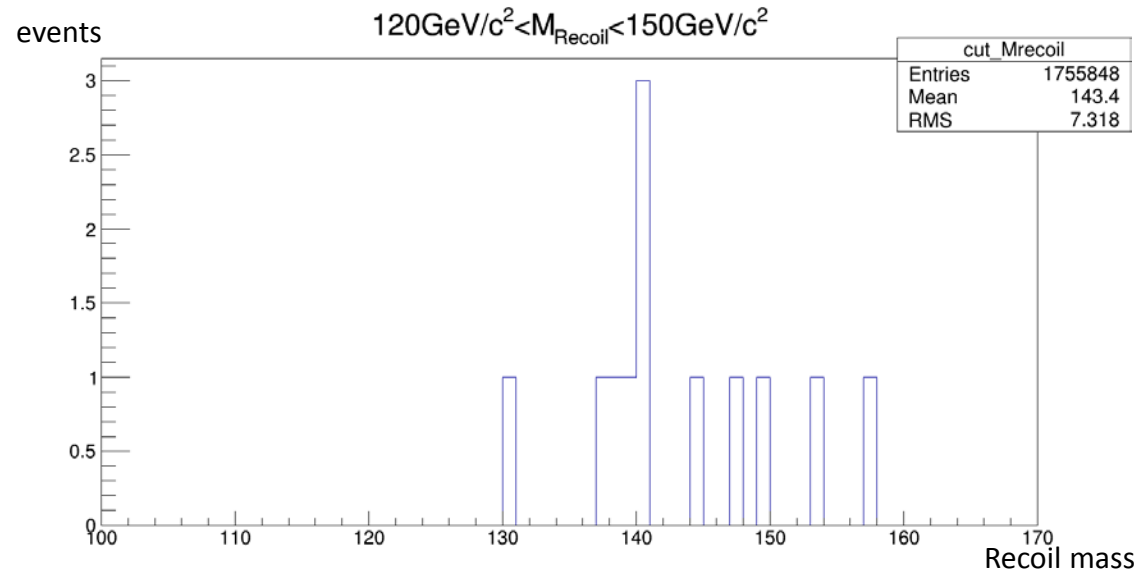


Before cut Recoil mass distribution:

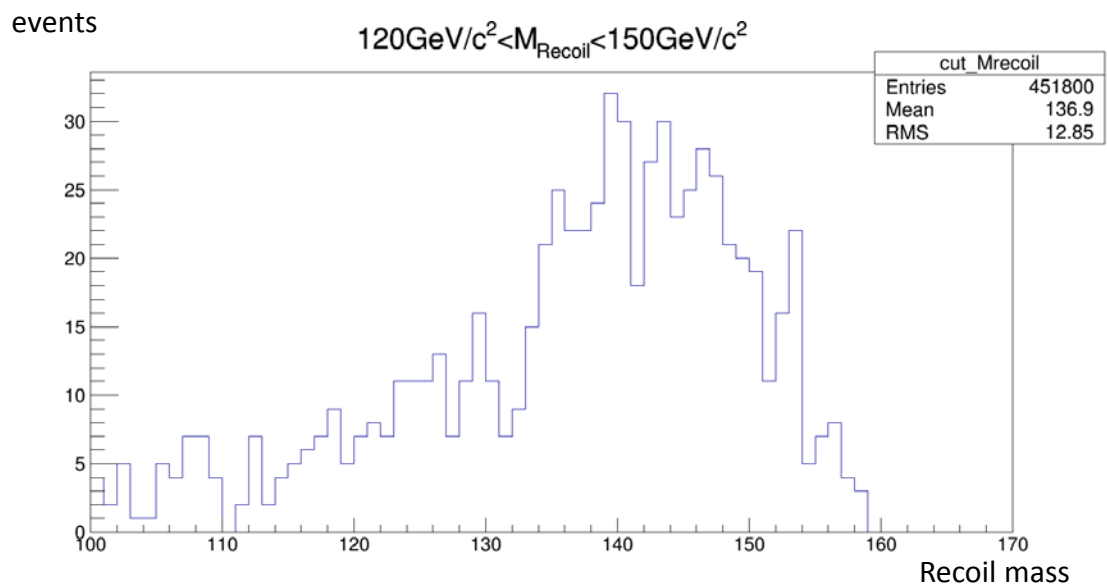
Signal



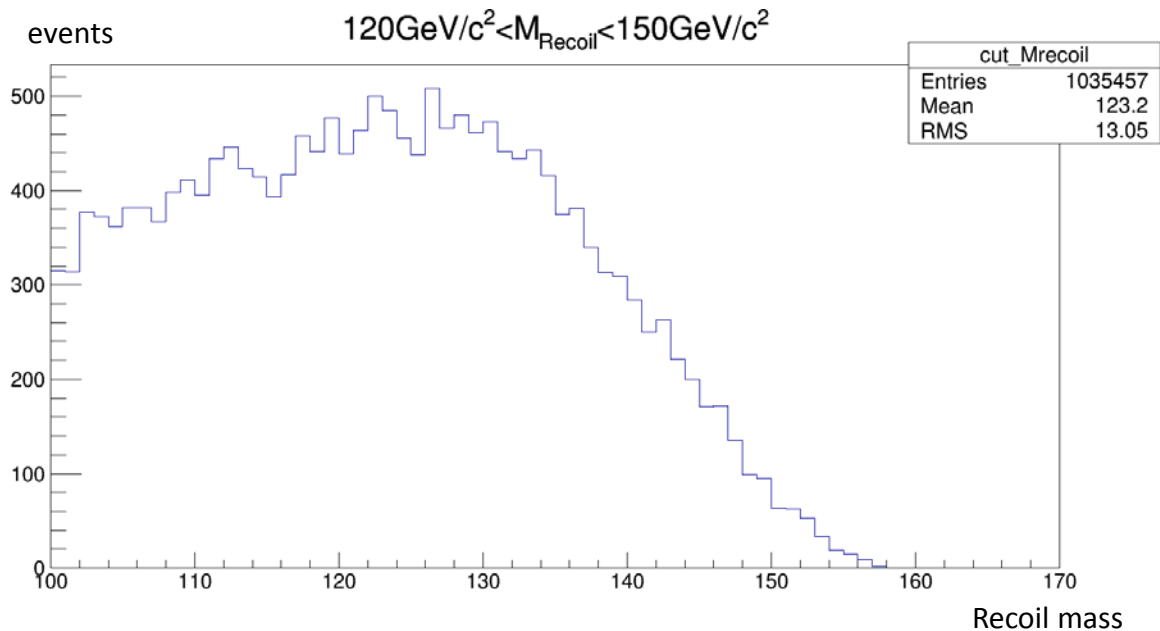
Background: higgs->qq



Background: e+e- ->τ+τ-



Background: e+e- ->ww_||0||



Next plan

1. Plot all background distribution about cut condition before cut and after cut.
2. Learn how to calculate the confidence level upper limit and branch ratio.

Thank you