

# Status report

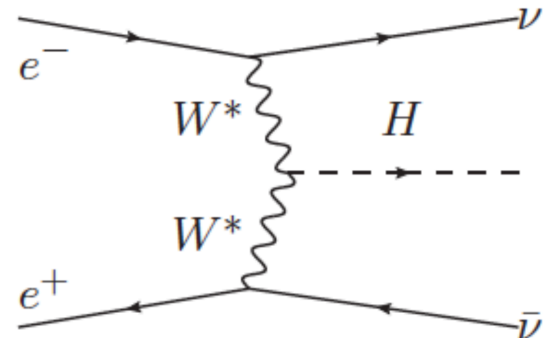
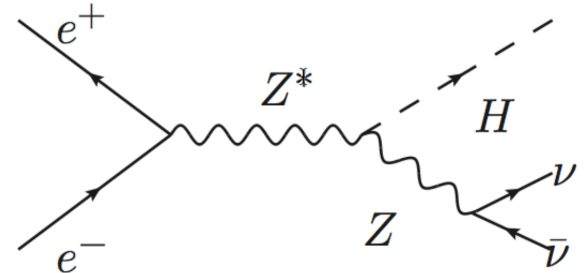
Asian Physics and Software Meeting

by Christian Drews

2014.06.13

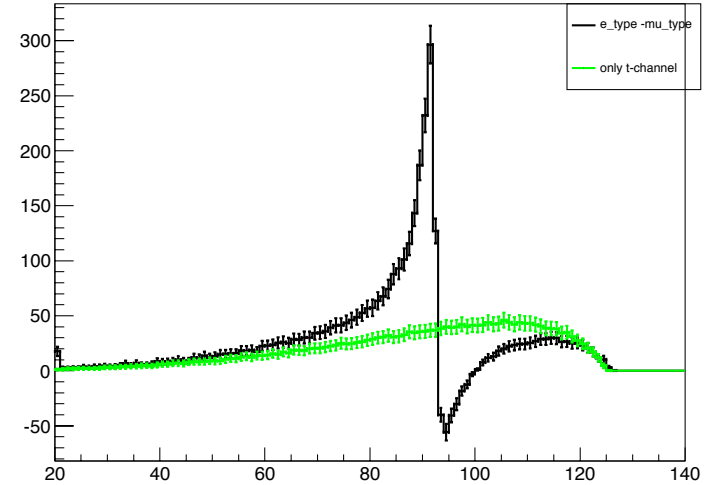
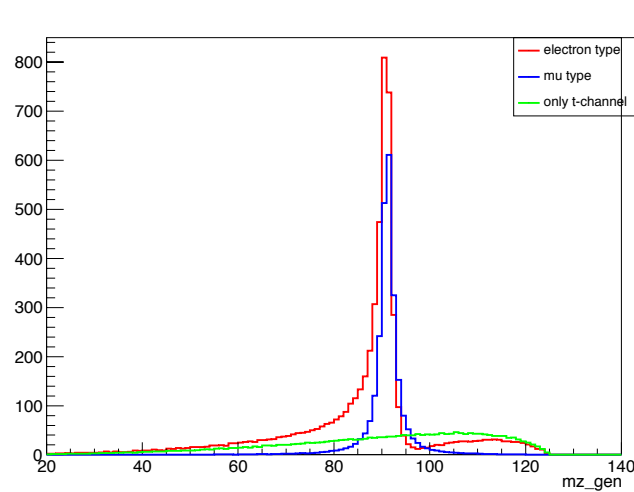
# Analysis of $e^+e^- \rightarrow \nu\nu H$

- cross section
  - left-handed: 129 fb @ 250 GeV
  - right-handed: 65 fb
- Missing mass  $m_Z \sim 91 \text{ GeV}/c^2$
- Visible mass  $m_H \sim 125 \text{ GeV}/c^2$
- Main Background:  $ZZ \rightarrow \nu\nu qq$ ,  $WW \rightarrow qq\nu\nu$
- Accuracies of Higgs branching fraction
  - $B(H \rightarrow bb)$ ,  $B(H \rightarrow gg)$ ,  $B(H \rightarrow cc)$
  - fitting b/c-tag 2D-Histogram
- Accuracy of WW-fusion-fraction

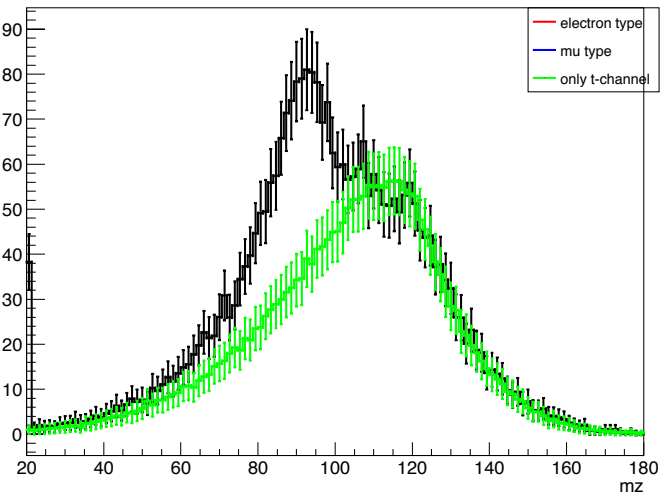
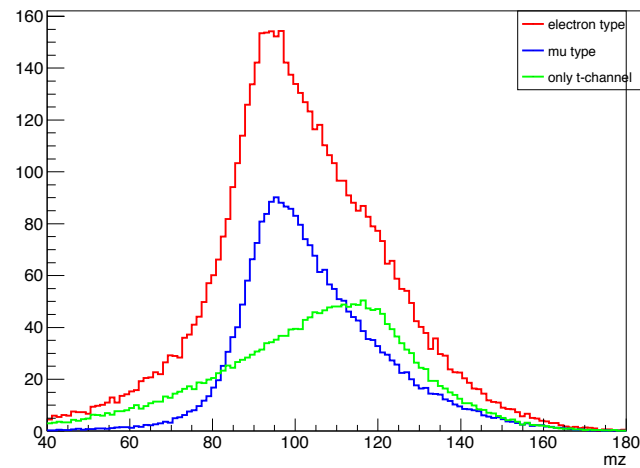


# Interference of ZH/WW in Z-mass

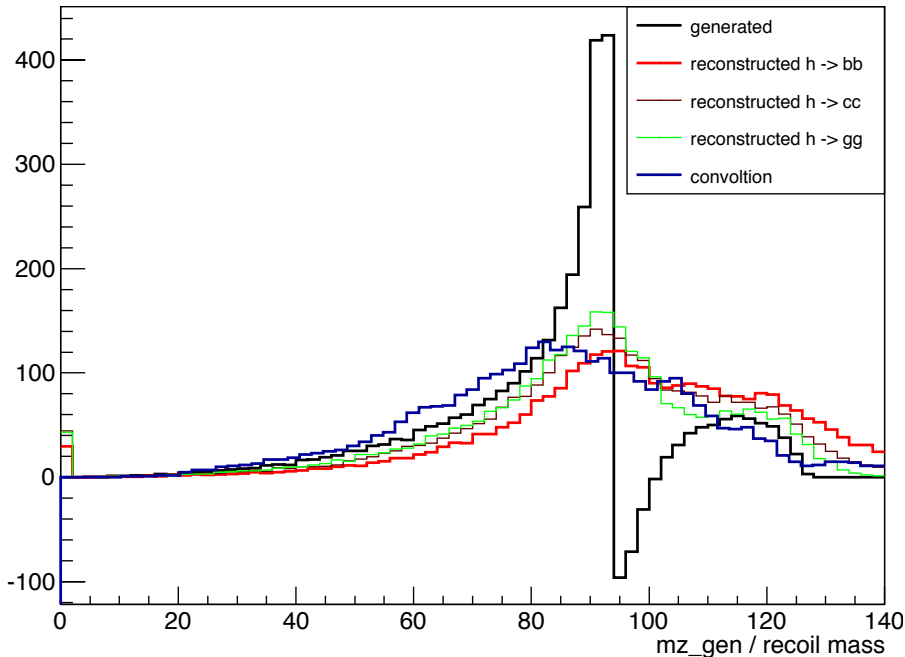
- gen. Z-mass



- Recon. Z-mass

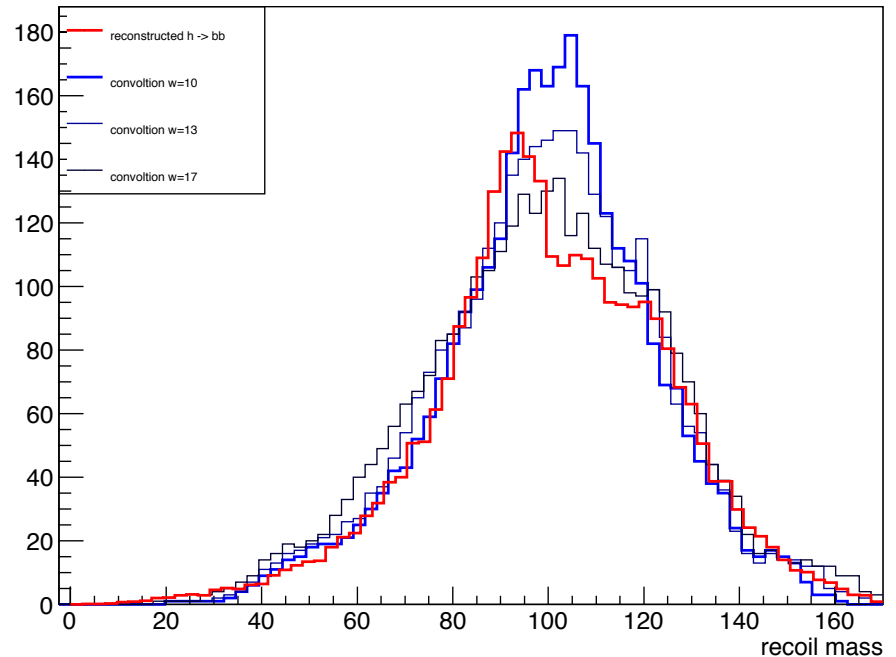


# Detector resolution WW-fusion + interference



convolution is generated curve convoluted with gauss (width = 13 GeV)  
- gg and cc have better resolution as bb curve because neutrinos in jet

convolution



convolution shifted by 15 GeV  
- shape is not perfect but not bad either