

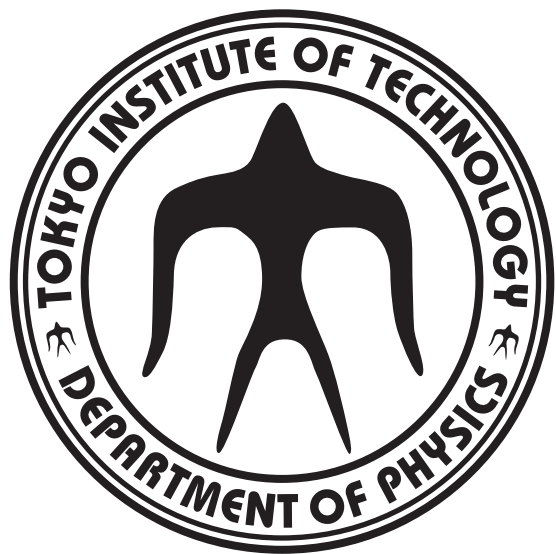
Hbb coupling measurement

Tokyo Institute of Technology



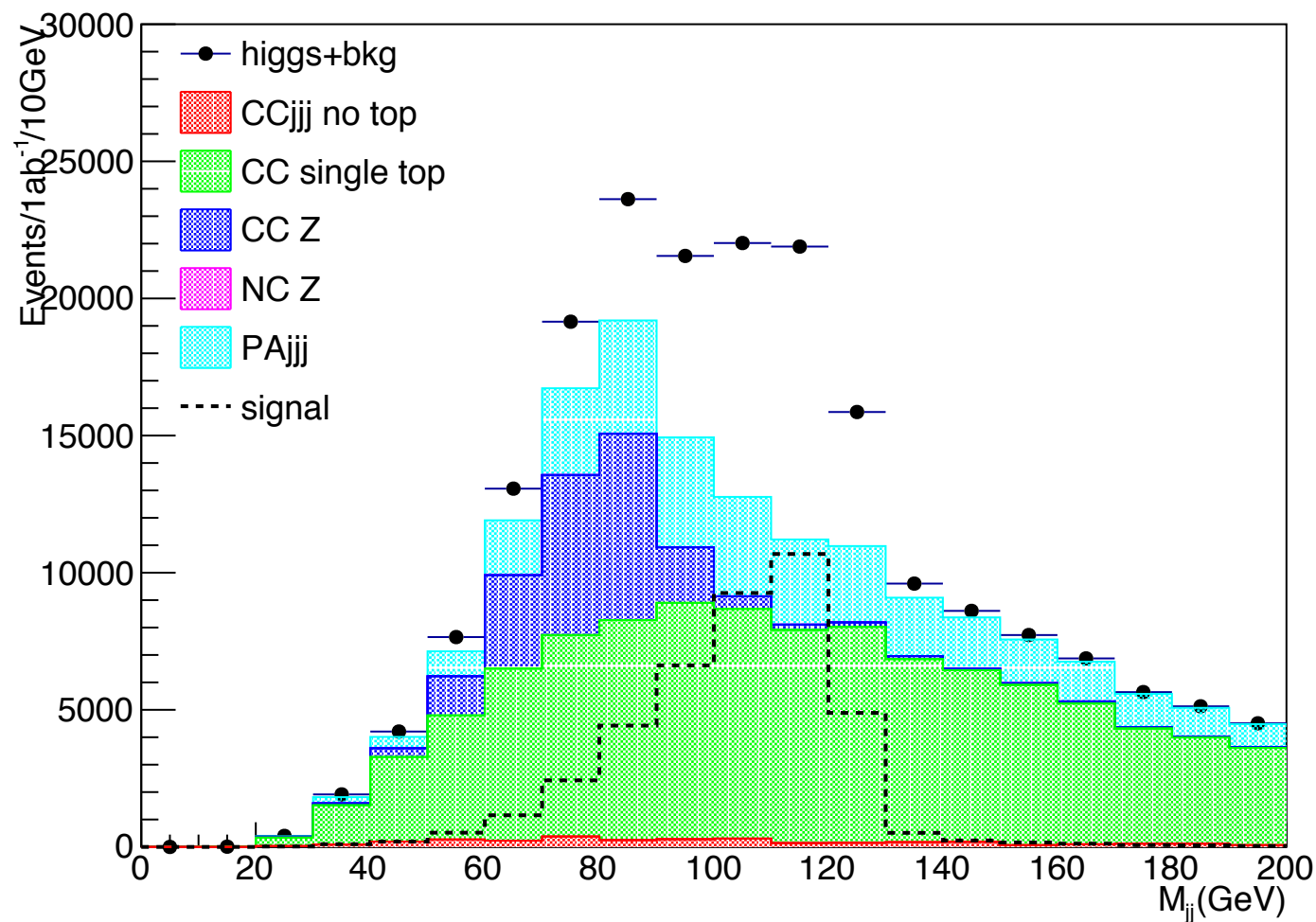
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FCC ep update

- Delphes.v3.1.2, delphes_card_PK
- Assume 1 ab^{-1} of statistics and 80% polarization of incident electron
- 90 % of photo production events assumed to be decreased by forward electron tagging



Signal: 25000

Bkg: 34900

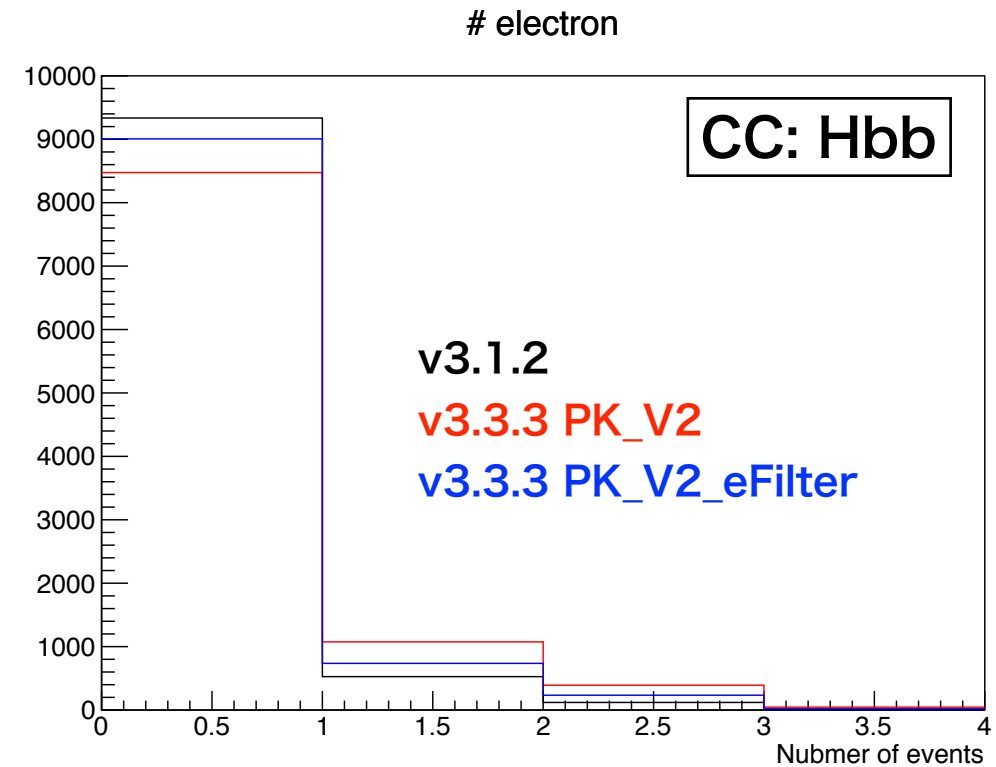
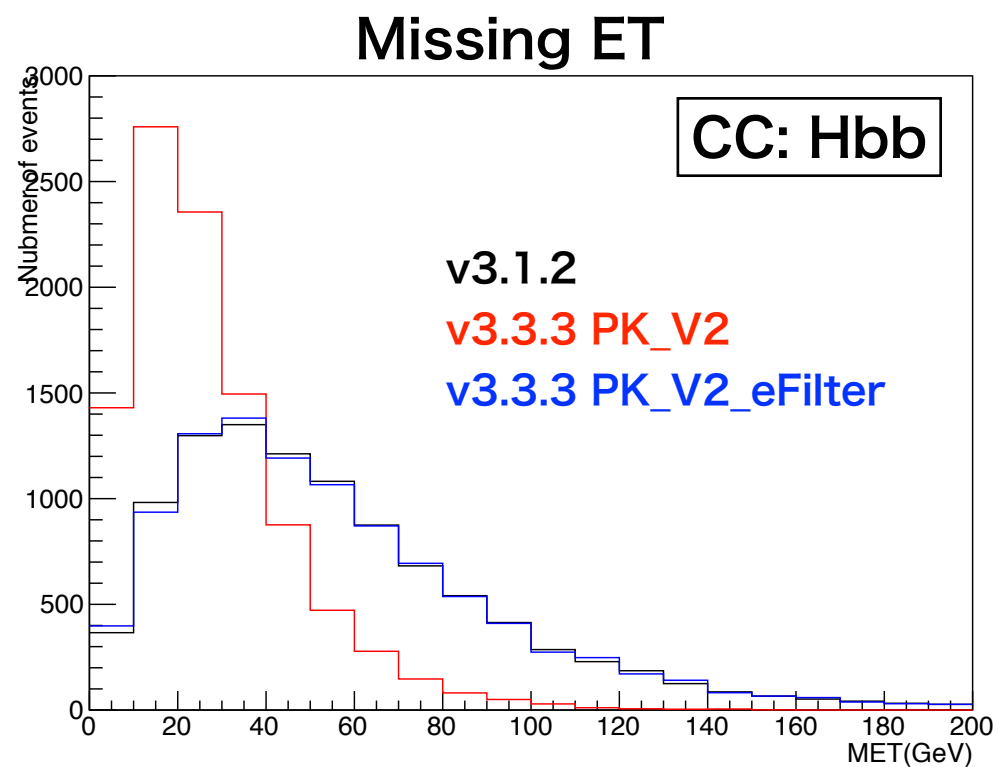
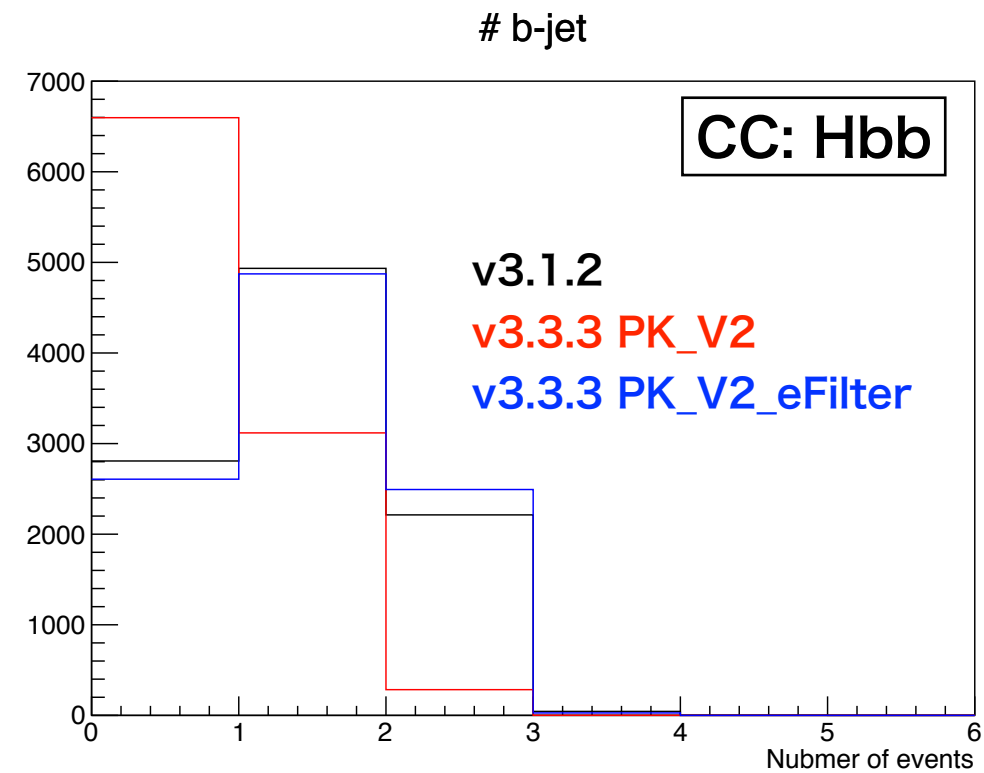
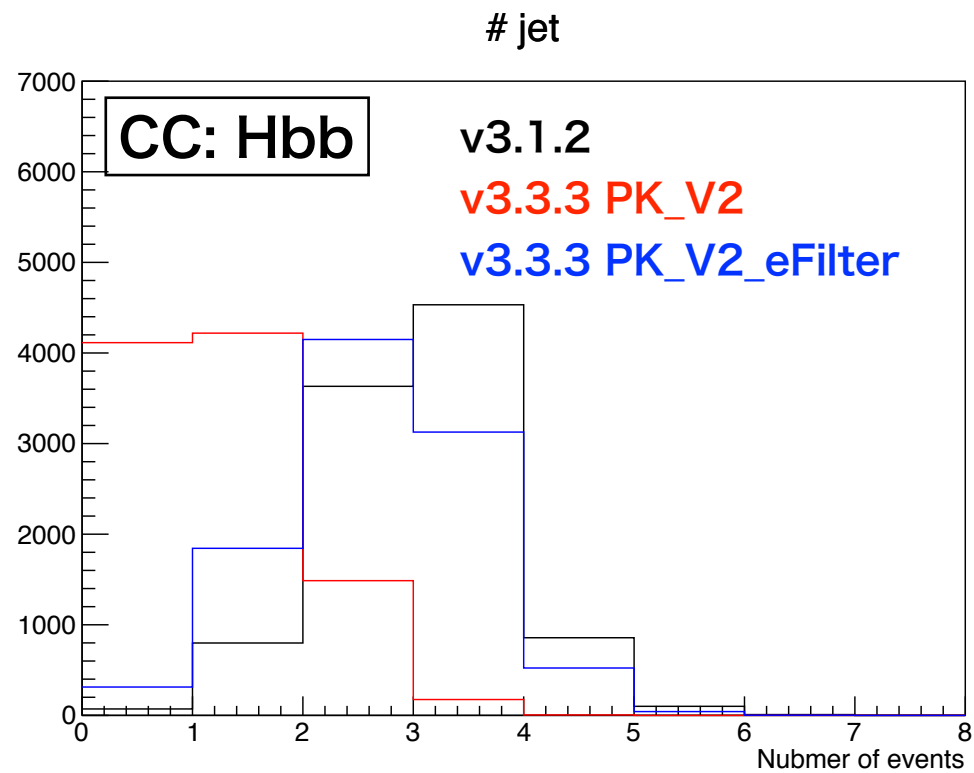
$\kappa(\text{Hbb}) \sim 0.5\%$

Precision of coupling constant
(Statistics error only)

$$\kappa = \frac{\sqrt{N_s + N_b}}{2N_s}$$

Check Delphes new card

- Checked new card from Satoshi works with Delphes.v3.3.3
- ➔ Almost same distributions with Delphes.v.3.1.2



Summary

- Cut based Hbb result at FCC ep (Delphes.v3.3.3, delphes_PK_V2)
 - $\sigma_g / g \sim 0.5 \%$
- New card file from Satoshi can work for CC: Hbb sample with Delphes.v3.3.3