

Study of Higgs Self- couplings at ILC

Junping Tian
Tsinghua University

Things in progress

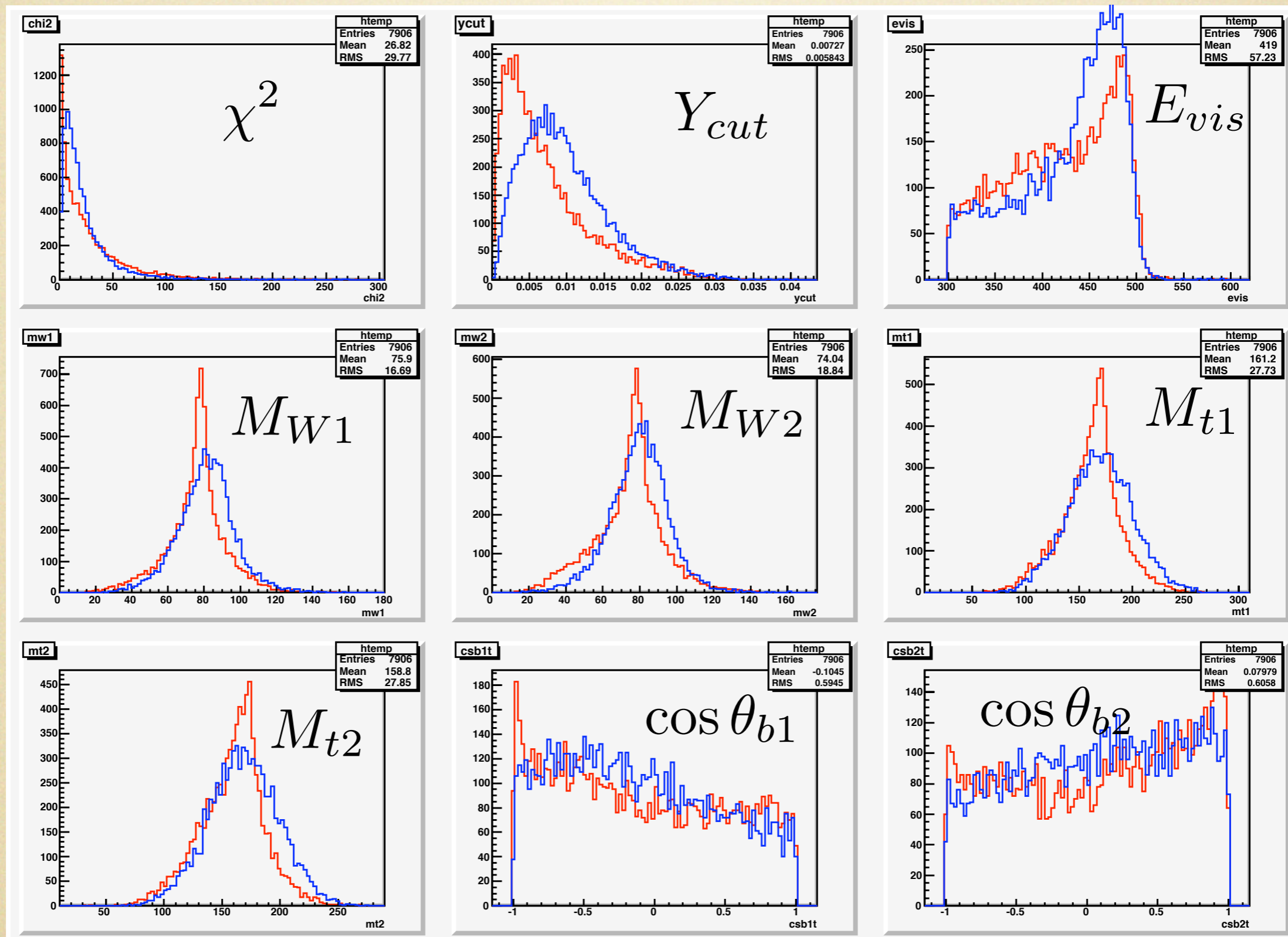
t t-bar events tagging

selection criteria:

- 6 jets mode
- b tagging required before minimizing χ^2

- $$\chi^2 = \frac{(M(q, \bar{q}') - M_{W1})^2}{\sigma_{M_W}^2} + \frac{(M(q, \bar{q}') - M_{W2})^2}{\sigma_{M_W}^2} + \frac{(M(b1, W1) - M_{t1})^2}{\sigma_{M_t}^2} + \frac{(M(b2, W2) - M_{t2})^2}{\sigma_{M_t}^2}$$

t t-bar (red) .vs. ZHH (blue)



preliminary! do not quite understand!

Things to do

- check the program to understand the distributions between t t -bar and ZHH.
- try to find more useful variables for tagging.
- sample of ZHH full simulation is prepared by Takubo-san, analysis should be done soon.