Higgs self-coupling analysis with H→WW*

Masakazu Kurata

01/09/2015

1

- **Study in LCFIPlus**
  - Start to study 0 vertex case
    - Introduce CDF style "BNess" tagger → done. Next step is constructing a strategy for flavor tagging improvement
    - In CDF, separation between b and the other is important, but in ILC difference among b, c, and the other is important → this is difficult(bc separation)
    - Preliminary results will be shown at next meeting

- **Vertex charge study**
  - Playing with LCFIPlus, changing some parameters and see what happens···
  - So far, secondary vertex finding eff. will be improved, but track attaching eff. won't be improved(very slightly improved···) → it is critical for vertex charge assignment···
  - Example: very preliminary! Of course flavor tagging eff. isn't considered use same event sample(qqHH), jet matching with MCtruth is performed

type	Bjet with 2 vtx	Bjet with 1vtx	Bjet with vtx
nominal	10529	21977	32506
corrected	13347	20175	33522

2