

[Benchmark Analysis] H->invisible @ 500 GeV

iLCSoft

v02-00-01

Study of Jet Energy Resolution

working dir.

```
[yu@kekcc] /home/ilc/yu/JER/jer_v02-00-01
```

MC samples

```
[yu@kekcc] /hsm/ilc/grid/storm/prod/ilc/mc-opt-3/ild/dst-merged/1-calib/uds
```

ILD model

```
{ ILD_I5_o1_v02, ILD_s5_o1_v02, ILD_I5_o2_v02, ILD_s5_o2_v02 }
```

Ecm [GeV]

```
{ 30, 40, 60 ,91, 120, 160, 200, 250, 300, 350, 400, 500 }
```

To Do List

- Evaluate jet {energy, angle} resolution in previous way (uds jet)
- Update JER definition using jet clustering
- Evaluate c & b jet -> **Need c & b jet samples with various Ecm**
- Consider jet Mass dependence

Questions

- Which weight file should I use in LCFIPlus?

H->invisible @ 500 GeV

working dir.

```
[yu@kekcc] /home/ilc/yu/JER/qqhinv500mkf_v02-00-01
```

MC samples

```
[yu@kekcc] /hsm/ilc/grid/storm/prod/ilc/mc-opt-3/ild/dst-merged/500-TDR_ws
```

To Do List

- Evaluate result in previous way
- Apply kt_algorithm to remove γ γ -overlay

Questions

- Which weight file should I use in IsoLepTag?