



Contribution ID: 36

Type: **not specified**

Top Yukawa coupling measurement at 1.4 TeV at CLIC

Tuesday, 29 August 2017 16:30 (15 minutes)

The precision on the top Yukawa coupling is measured in the $e+e \rightarrow \tau^+tH$ process at $\sqrt{s} = 1.4$ TeV using Compact Linear Collider (CLIC). The analysis focuses on the 6 jets and 8 jets final states channels using particle flow technique. Leptons are identified first follow by clustering the remaining particles into jets and removing the beam jets. Particles that are not identified as leptons are reclustered into jets and performed flavour-tagging. Optimal selection are investigated to select leptons and to suppress the beam-induced backgrounds. Collection of variables are used as input to the BDT to select signals. The precision of the top Yukawa coupling in the semi-leptonic channel is determined to be 5.92% with no beam polarisation.

12 minutes presentation + 3 minutes discussion

Presenter: Mr ZHANG, Yixuan (University of Edinburgh (GB))

Session Classification: Physics/Analysis