



Contribution ID: 151

Type: **Oral Presentation**

Improved jet clustering algorithm with vertex information for multi-b final states

Saturday 11 June 2011 16:40 (20 minutes)

In the TeV-scale collider physics, many important final states include 6 or more jets where jet clustering is essential for the event reconstruction.

If many heavy-flavor jets are included in the final states such as Higgs bosons decaying into two b-quarks, the jets can be identified using the vertex information.

Our study with ILC detector full-MC simulation has shown a significant improvement in counting b-hadrons with the new algorithm using vertex information.

This algorithm shall be especially important to measure Higgs self coupling, which is one of the most important but difficult measurements in ILC.

Author: Dr SUEHARA, Taikan (The University of Tokyo)

Co-authors: Dr YAMASHITA, Satoru (The University of Tokyo); Dr TANABE, Tomohiko (The University of Tokyo)

Presenter: Dr SUEHARA, Taikan (The University of Tokyo)

Session Classification: Experimental Detector Systems

Track Classification: Experimental Detector Systems