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... on behalf of groups at



SIC  
Sistemes d'Instrumentació  
i Comunicacions



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## **Topics to be addressed:**

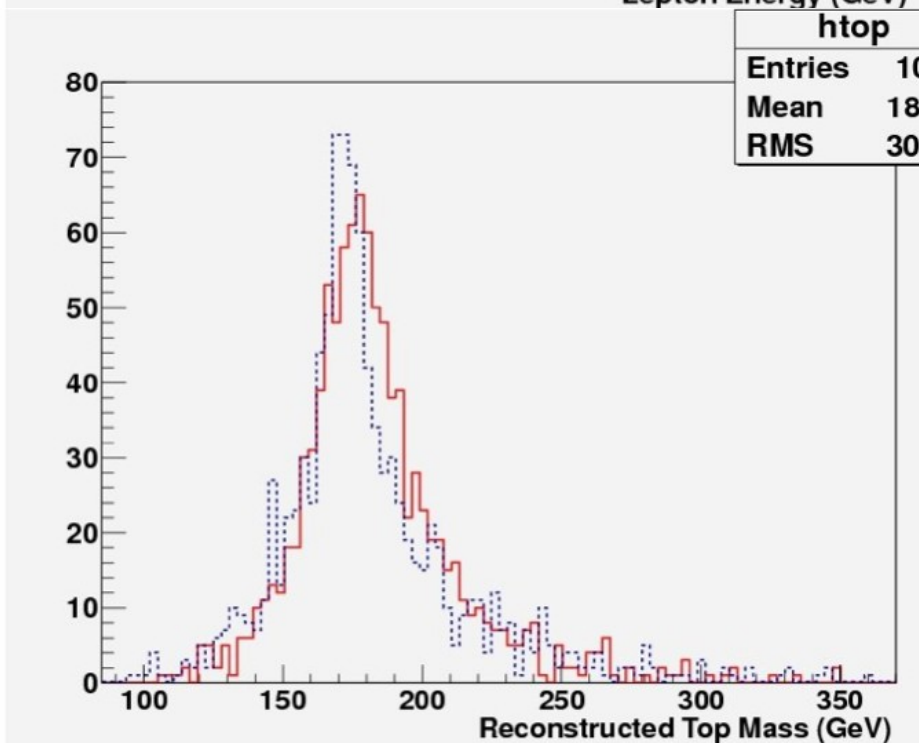
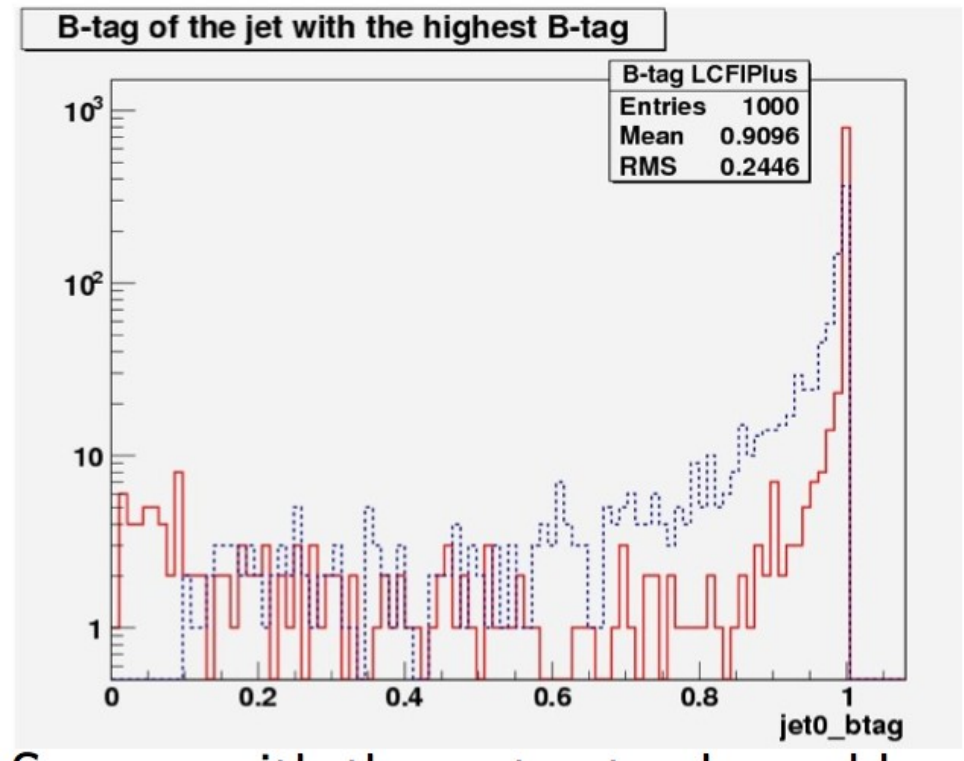
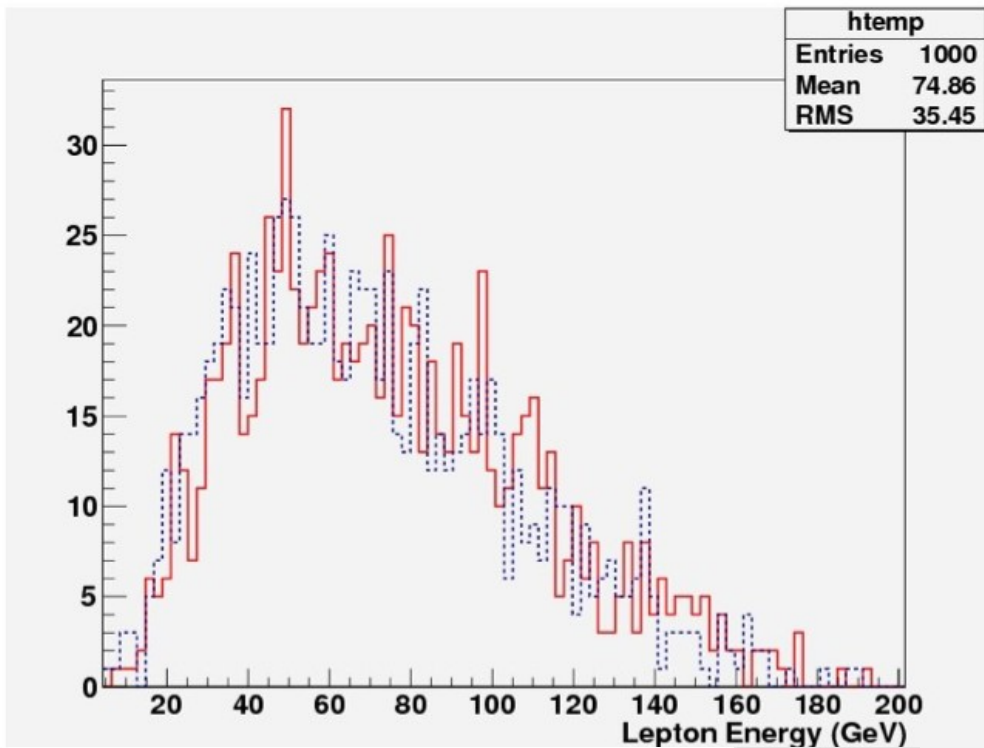
- Top mass MPI group Munich  
Very remarkable results for the CLIC study**
- Asymmetry studies (LAL/IFIC)**
  - “Traditional”, AFB and ALR**
  - New observable helicity asymmetry**
- Fairly complete study for semi leptonic  $t\bar{t}$   
on AFB, ALR and  $A_{\text{hel}}$  with LOI samples**
- LOI analysis on AFB for fully hadronic  $t\bar{t}$  by  
Akiya and Ikematsu**

# Status of asymmetry analysis

(Details see Jeremy's talk in optimisation group)

- Samples (particular 500 GeV) came rather late!  
SGV samples very useful to get started  
All results shown today are based on SGV samples
- No straightforward start  
Replacement LCFIVertex by LCFIPlus  
Great reactivity by Taikan on our naive question
- Training to get 4 jet sample for semi-leptonic case
- Have started to look at full simulation

# Some first comparisons - LOI $\leftrightarrow$ DBD



## Conclusion

- 1 Now working on the full simulation samples with ILCSoft v01-16.
- 2 Still some work to do on the Monte Carlo part of the analyse to get the Reco-MC link.
- 3 I will use the official 4q 500 GeV weight files when available.
- 4 Mohammad Sohail Amjad, a PhD student, have started to work on full hadronic top decay here at LAL.

-> DBD samples will be also analysed at IFIC

# Top mass and outlook

## Mass:

- Top mass is on very critical path  
Katja leaves just today the MPI
- Frank and me agreed to look whether Marlin processors can be integrated into LAL/IFIC analysis chain and final fit made by Frank

## Outlook:

- Analysis has just started but a number of technical Issues have been solved
- For DBD analysis will concentrate on signal sample
  - > Know that we have efficient cuts against non gamma gamma background
- Should get educated guess on gamma gamma bkgr. (or do the study)
- The later we need to deliver the better
- LOI analysis in hand of (unexperienced) student