

# Status of Top asymmetry studies at 500 GeV

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## Change in the reconstruction procedure

- 1 I have use the file of rv01-16-p05\_500 with the process yyxyev with the polarisation eL.pR for the preliminary results.
- 2 During the reconstruction I look for one lepton and removed it from the PandoraPFO collection: need to run the VertexFinder once again after that.
- 3 The first jet clustering is done with SatoruJetFinderProcessor to be able to run everything in one steering files.

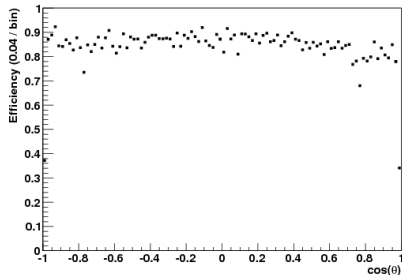
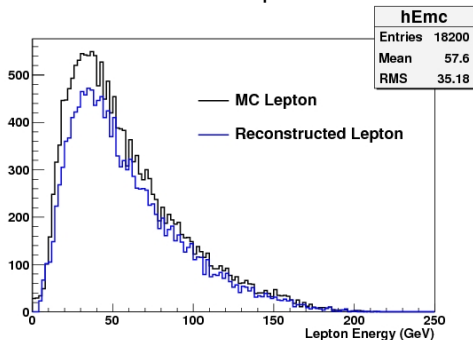
## Question for people using DIRAC

- 1 DIRAC have a problem with the FlavorTag of LCFIPlus for the line:

```
<parameter name="FlavorTag.CategoryDefinition2"  
type="string" >nvtx==1&&nvtxall==1</parameter>  
because of the symbol &&.
```

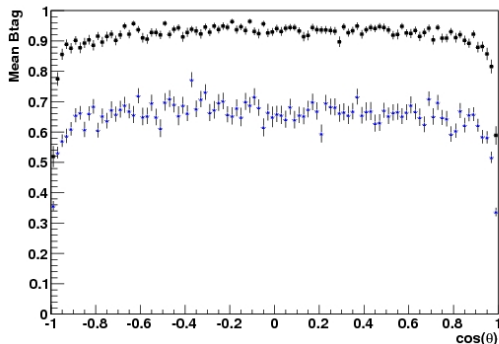
- 2 Taikan give me a nice trick: change  $nvtx==1 \&\&nvtxall==1$  in  $(nvtx==1)+(nvtxall==1)==2$ .
- 3 Are there other solutions ?

## Some results: Lepton



For DBD(LOI) sample: efficiency 83%(88%) and 0.5%(0.3%) of bad leptons. Lower efficiency need to be study. May be due to  $\gamma\gamma$  background?

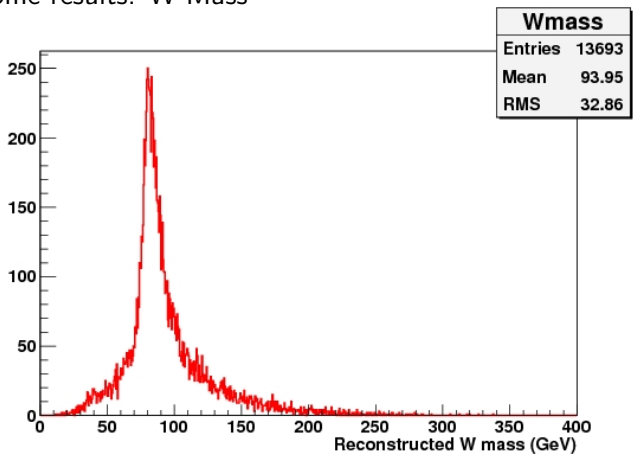
## Some results: B-tagging



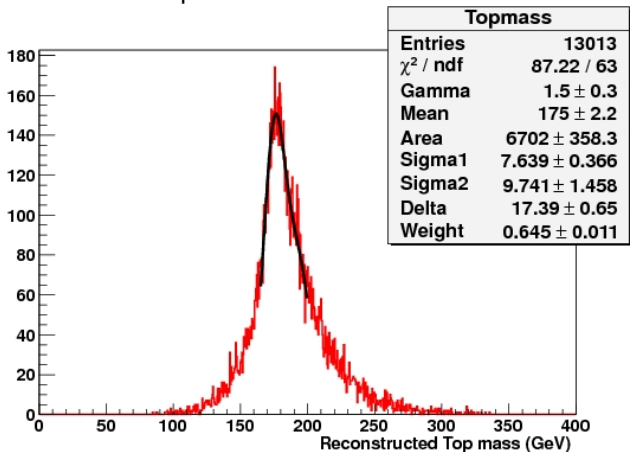
The B-tag distribution for the jet with the higher B-tag (in black) and the second higher (in blue).

Better results than for the LOI. But lower values for small angle.

## Some results: W Mass



## Some results: Top Mass



## Conclusion

- 1 Analyse of all the 6f ttbar is running to have the full statistics and other ttbar decay background.
- 2 Some details still need to be checked (impact of the  $\gamma\gamma$  background ?).
- 3 Then the plots for variables of interest ( $A_{FB}$  and  $\theta_{helicity}$ ) will be done.
- 4 I also received the processors for the top mass studies of Munich to see how to add them to my steering files to create the root files here at LAL.