

Update on MET Significance in PAT

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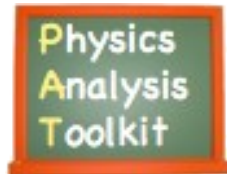


Outline

① Produce MHT Significance in PAT

② Nuts and Bolts

③ Todo



We can produce the MHT Significance in PAT Layer1

- Working platform: CMSSW_1_6_12
- Input objects: Jets, Electrons, and Muons from PAT
- Related files:
 - DataFormats/PatCandidates/interface/MHT.h (courtesy of Filip)
 - PhysicsTools/PatAlgos/plugins/PATMHTProducer.cc (.h)
- Tested by the SusyPat allHadronic analyzer

How to load the MHT Significance module?

- Check out the PAT with tag “B1_6_X”
- Add the following module in your config file:

```
module mhtProducer = PATMHTProducer{  
  untracked InputTag jetTag = selectedLayer1Jets  
  untracked InputTag electronTag = selectedLayer1Electrons  
  untracked InputTag muonTag = selectedLayer1Muons  
  untracked InputTag tauTag = selectedLayer1Taus  
  untracked InputTag photonTag = selectedLayer1Photons }  
  
include "PhysicsTools/PatAlgos/data/patLayer0.cff"  
include "PhysicsTools/PatAlgos/data/patLayer1.cff"  
  
path p = {  
  ...  
  patLayer0,  
  patLayer1,  
  mhtProducer,  
  ... }
```

- cmsRun !

Todo

- Consistency check with CSA07 sample
 - Susy LM1 and Chowder sample almost done (by Xin)
 - Wenu and Gumbo sample in progress (by Aleko)
- Debugging and improving the algorithm
- Migrating into CMSSW 2_X_X