



Top Physics Group Status

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DESY CMS Meeting, 31-05-2010

Top Physics Activity

The LHC plans to 1pb-1 by the end of June

Expected after selections in dileptons: 3 (ee+mumu+emu) events per pb-1 with S/N about 10

First cross section measurement possible with ≥ 2 pb-1

Activity at DESY:

- **DQM and prompt trigger monitoring for top-like events: Markus**
 - Data-driven procedure for trigger efficiency determination
 - Significant J/psi $\rightarrow$ mumu peak in TopDiLeptonDQM events
 - First good Z $\rightarrow$ mumu candidate in Offline TopDiLeptonDQM
- Integrated in the TOP PAG official activities
- Presented at last *DESY/HH* mtg. and at *joint TOP Task Forces* mtg. (12.05.10)
(<http://indico.cern.ch/getFile.py/access?contribId=4&resId=0&materialId=slides&confId=93797>)
- Update with more statistics tomorrow at CMS FSP Meeting

Top Physics Activity

▪ PATtuple production at DESY for MC Spring10 samples: Dirk

HLT_Mu9 preselection:

DYMuMu_M5to20
JPsiToMuMu_2MuEtaFilter_7TeV
Upsilon1SToMuMu_2MuEtaFilter
Upsilon2SToMuMu_2MuEtaFilter
Upsilon3SToMuMu_2MuEtaFilter
WW
WZ
ZZ
Ztautau

No preselection:

TTbar-madgraph
TTbar-mcatnlo
Zjets-madgraph
Wjets-madgraph
InclusiveMu15

Other samples:

Zmumu (without any selection --> can be used for tag andprobe trigger studies)
TTbar (Pythia split into mumu channel, mumu via tau channels andother ttbar with trigger preselection --> can only be used fordimuon analysis)

▪ Towards early measurement of dileptonic ttbar cross section: Maria

- Reference selection for synchronization exercise
- Performance plots on ttbar-like signatures

Miscellanea

CMS-MUO-10-001-003:

“Measurement of the charge ratio of atmospheric muons with the CMS detector”
was submitted to arXiv and Physics Letter B on 28.05.10
(arXiv:1005.5332v1 [hep-ex])