MC Status

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Meeting Atlas Italia WZ 29-1-09

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MC Status

Full simulation tag s462 (ATLAS-GEO-02-01-00)

Channel Dataset   Cross Section   required(100 pb⁻¹)   Done

Channel	Dataset	Cross Section	required(100 pb^{-1})	Done
Z→μμ	106051	1.5 nb	0.2 M	5 M
W→μν	106021	11 nb	1.2 M	5 M
Z→ττ	106052	1.5 nb	0.2 M	0.2 M
W→τν(1Lep)	106022	4 nb	0.5 M	0.6 M

DONE!

Drell Yan see next page

| ttbar | 109082 | <1 nb | 0.1 M | 0 |

Max pointed out that T1_MC@NLO_Jimmy sample is available (number 105200)

Z/W→qqbar missing. Is it worthwhile doing it?

Drell Yan Job Options

Prepared and tested 2 new job options for DrellYan $\mu\mu$ and $\tau\tau$.
Waiting for final approval from Pavel S..

Generation cuts:
$10 < M_{mumu(tautau)} < 60$ GeV
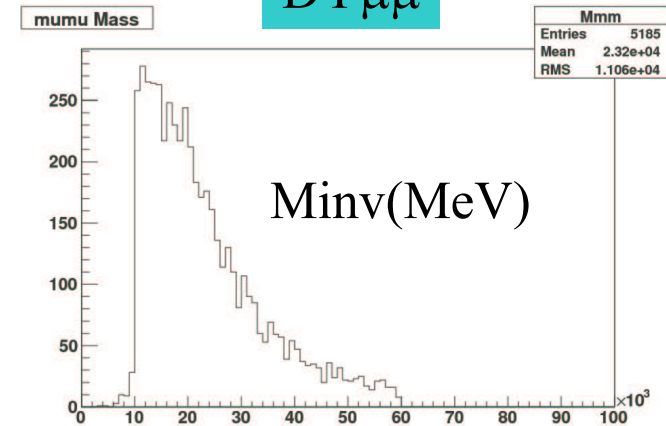1 Lepton (muon or electron) with $p_T > 10$ GeV

Cross Section:
$\mu\mu$ 0.7 nb
$\tau\tau$ 0.03 nb

DY$\mu\mu$

mumu Mass

Mmm	
Entries	5185
Mean	2.32e+04
RMS	1.106e+04

Minv(MeV)

Higher Pt

Hipt	
Entries	5185
Mean	1.578e+04
RMS	6205

Higher Pt(MeV)

DY$\tau\tau$

tautau Mass

Mtt	
Entries	6546
Mean	2.998e+04
RMS	1.359e+04

Minv(MeV)

Higher Pt

| Hipt	
Entries	6546
Mean	1.441e+04
RMS	5233

Higher Pt(MeV)
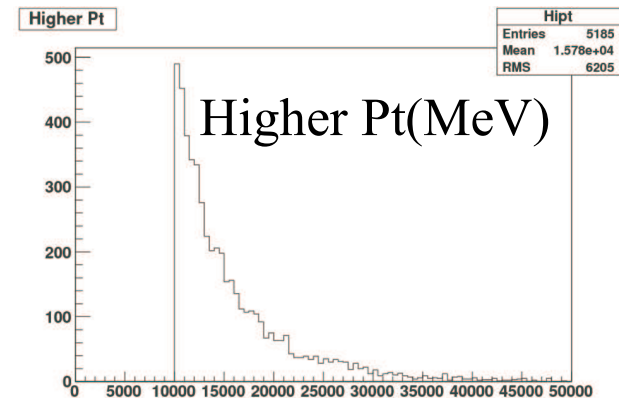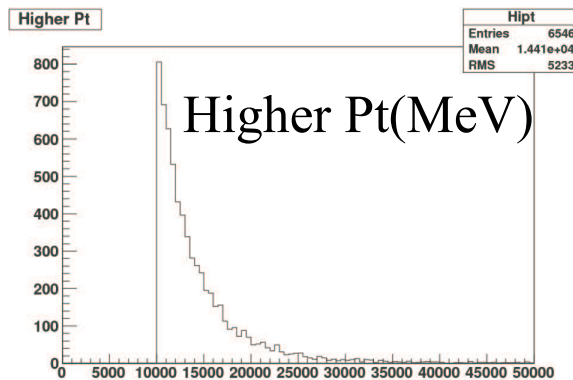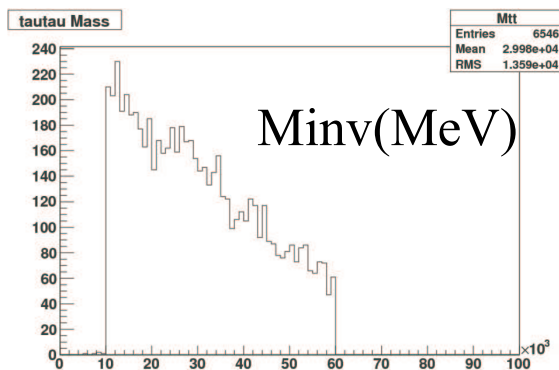
Heavy Quarks

Cesare is checking the cross sections and is testing a new ccbar JobOption.
Cross sections from BBbar group have been done for sqrt(S)=14 TeV while
our MC sample is generated at 10 TeV.
From log file we found about 100 nb for bbmu15X.

Event simulation waiting for our input on joboptions and ATLFast
reconstruction tags (next slide).
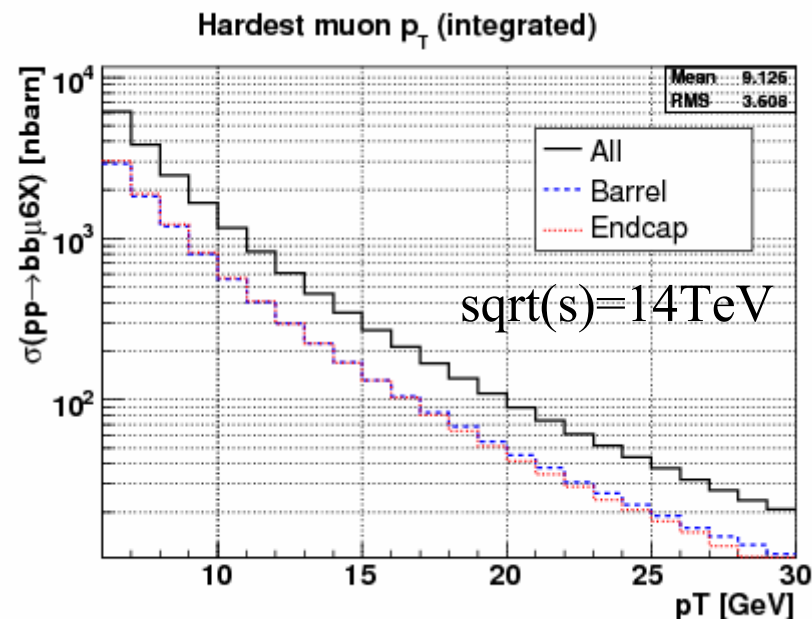
ATLFast: a68

The tag for ATLFast reconstruction is a68 corresponding to the geometry ATLAS-GEO-02-01-00, full simulation of tracking detectors, and fast simulation of the calorimeters.

However, ATLFast people only produce AOD's directly from evgen. Ada is trying to understand how to get HITS from ATLFast and how to run the 'partial'-reconstruction on it with different geometry tags.

Since now, few sample have been produced:

0.2 M each for J0-J4 Pythia
and
0.4 M each J0-J6

Other a68 done for Z$\rightarrow\mu\mu$ could be used to test calorimeter response to muons in fast simulation (see Max slides on Ntuples).

Reconstruction

Ada & co. succeded in re-reconstructing mc08 RDO files with new geometry tags with 500 μm misalignment.
We will have to learn how to run it on the grid (Carlino could help)
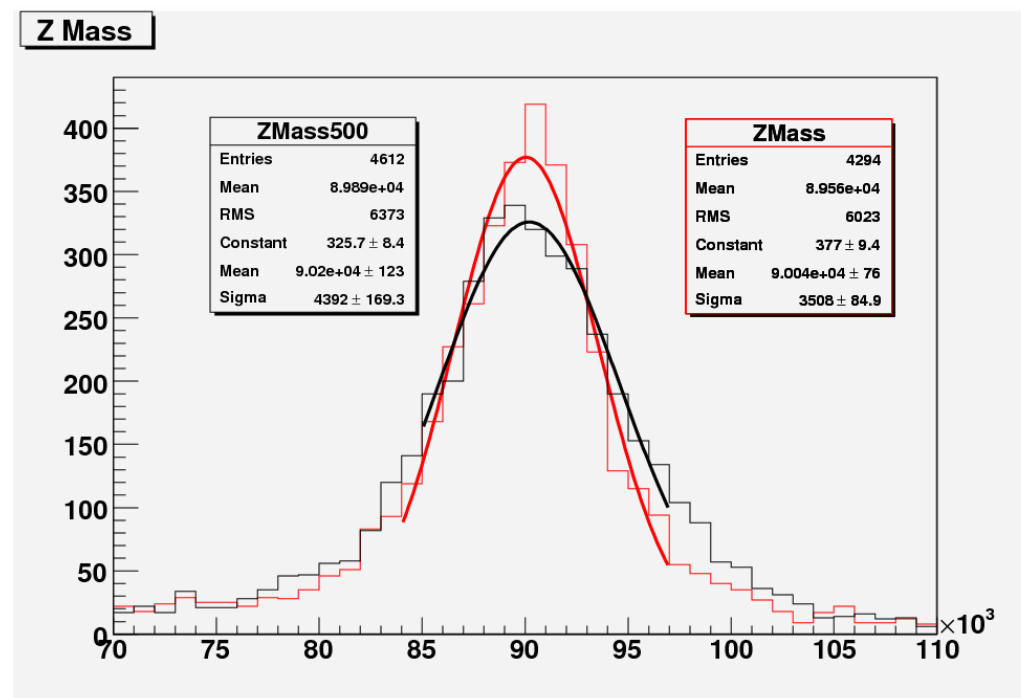
Subscriptions

AOD and HITS files must be subscribed to the Italian Tier's.
Should be stored in the ATLASLOCALGROUPDISK tokens, one in each tier,
together with Ntuples. These are NOT scratch areas.

We expect few TB for the AOD's and up to 20 TB for the HITS (skimming
should be studied at MC level for Jets).
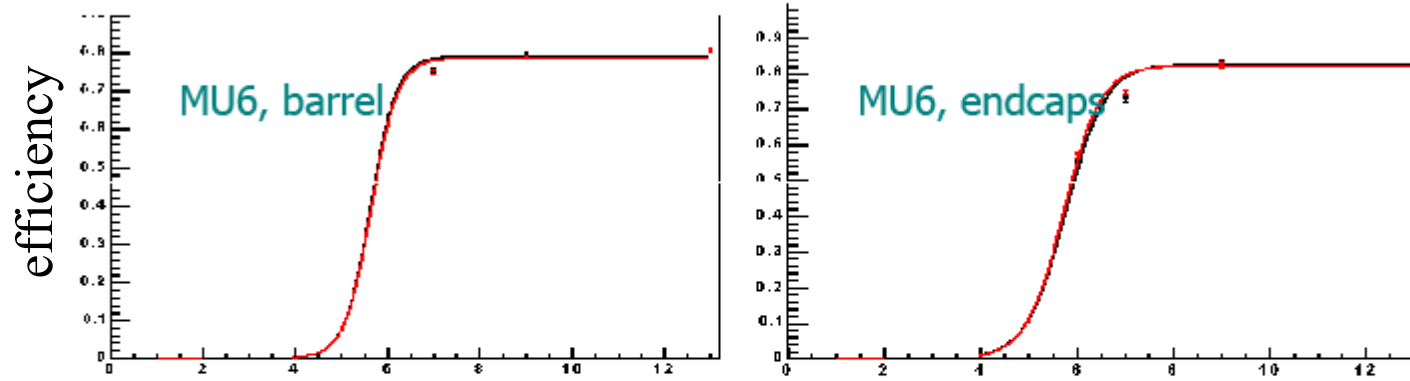For instance, Frascati has now 7 TB for the LocalGroupDisk.

I started the procedure registering myself on the panda site (waiting for approval
of the IT cloud responsible) and I'm in contact with Carlino.

In the meanwhile, I'm working on a python script that, using dq2 end-user tools,
produces a list of all the tasks of interest not already subscribed in the Italian
cloud, with number of files and total size. This should easy the subscritpion and
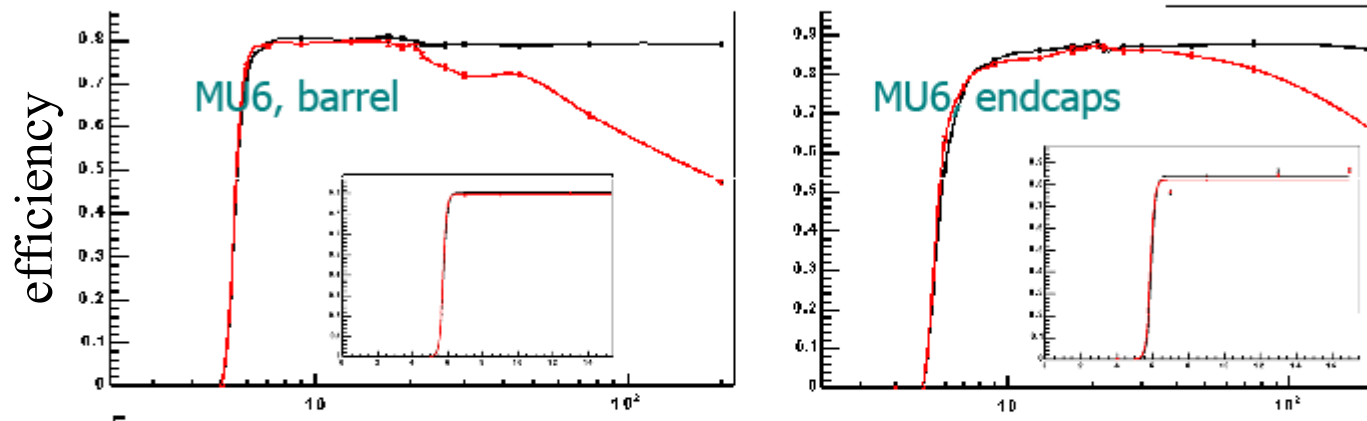the monitoring of the status of the MC production.

MS trigger standalone

M.Primavera and M.Biglietti have been contacted to discuss the possibility to implement and test a trigger with MS standalone.

MS Standalone