

*Trial Version*

## WorkLog

### To Be Done

- Proceedings for Moriond/UCL
- PRD - correction curves for RDF (toward trv pt sum nchg )
- MCTuning - compare ATLAS tune with CDF data
- LAr

### Important Dates

BND School - 13th of September to Thursday, the 24th of September. August - RDF@CERN

June 29 to July 3 2009, a workshop on "Detector Understanding with First LHC Data" will take place at DESY, Hamburg.

Long Night of Science - 19th June

BBQ - 12th May

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### End April 2990

*PYTHIA*

Compile:

```
$ g77 -c pythiaxxx.f
```

```
$ g77 -o mycode mycode.f pythiaxxx.o
```

```
$ ./mycode > output.out
```

Lines longer than 72 characters? `$ f77 -ffixed-line-length-0 fortran-code.f`

To link with LHAPDF and compile:

Comment out: PDFSET, STRUCTM and STRUCTP

```
gfortran ue_dy2.f pythia-6.4.20.f /atlas/users/dkar/pythia/pythia6420/lhapdf/lib/libLHAPDF.a -o ue_dy -lstdc++
```

MSTP(51)=10042 (for CTEQ6L) MSTP(52)=2

Needed? `export LHAPATH=/atlas/users/dkar/pythia/pythia6420/lhapdf/share/lhapdf/PDFsets export LD_LIBRARY_PATH=$LD_LIBRARY_PATH:/atlas/users/dkar/pythia/pythia6420/lhapdf/lib`

### Mid April 2009

Long Update

*MC Tuning*

Plans to use modified leading order PDF. Check why ATLAS tune (PYTHIA 6.402, CTEQ 6.01) does not match CDF DY UE data, hence tune A/AW. Try with MSTP(95)=2.

Reasons? ISR, Color parameter nearest neighbor?

Tunes - Hendrik (329) 0.22? Skands(320)0.16, RDF 0.25?

*UE Study*

Charged Jet, Calo Jets...(in CMS) MINbias study?( pthard = 0, all QCD), ptmax upto 3 GeV same distributions direction set by highest pt charged.

**4th March, 2009**

*Physics Analysis*

ATLAS UE studies: Two subgroups in Standard Model Physics group - QCD and W/Z+jets. Contact persons: Alessandro Tricoli (W/Z), Arthur Moraes (QCD) Jason Nielsen. Proposed topic in W/Z+jets group: Measurements of the Underlying Event in W/Z+jets events.

Look at ATLAS SM indico pages. Meeting. Mailing list.

*Service Work*

Look at LAr week talks.

Resources: Offline> LArCal> LArDigi... MC's which have trigger simulation, i.e "containers" corresponding LArRAWChannel, TrigTower, TileRow etc.

Read:

- Readout from FEBs to L1 system.
- Have to get FebID corresponding to missing FEB. Match it with TriggerTower, reconstruct Calocell.
- FEB, LSB, EMB, TBB, How energy is reconstructed layer by layer in main readout. Energy estimate in Level 1. Difference? Ratio? Correlation?
- Problems: Noise, Timing, Gains recovery?

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**3rd March, 2009**

Proposed Service work topic: *using the L1 information to recover energy information for Feb not sending data* with Guillaume Unal and Chaouki Boulahouache. More information needed...

Can log into lxplus machines - ran the test Helloworld job.

Questions about Athena/ATLAS analysis: Where are the MC samples?

Steps for me to would be:

- Locate MC samples (AOD?) for generator level and (reconstructed?) detector level.
- Write UE analysis code, start with DY. (Copy CDF code in local machine)
- Once that is successful,
- Compare with CDF data?
- Compare with tunes? (Generate MC's?)

Then JET UE (Jet algo at ATLAS?) and Z+ Jets. Find out status of ATLAS UE tunes. At UCL workshop?

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### 2nd March, 2009

Arrive at CERN. Registered as "user". Got access card. Got computer accounts. Still not a member of *atlas-current-physicists* list, so can not access Physics workbook.

For grid account, visited: <https://pkiwiki.phy.tu-dresden.de/twiki/bin/view/IKTP/AtlasRegistr> Filled out the form, got a pdf certificate. What next? Physically verify passport? Where?

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### Week of 23rd to 28th February, 2009

More of the same.

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### Week of 16th-20st February, 2009

Joined TU Dresden, Getting all paperwork done...

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-- DeepakKar - 03 Mar 2009

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This topic: Main > WorkLog

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