Local Calibration

Need to reproduce the Reco/Truth comparison presented at Ringberg

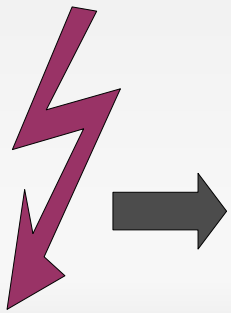
SHORT TERM : **Ntuples**
· use of different truth OOC and truth DM
· test of new DM corrections from Gena
· test of new constants
· test of classy-free approach (???)

FUTURE.....
writing a LC validation package that works on customized ESD like the one produced by Sven's new package... :-)

Quick: RDO data are being shipped to DE && plot code is ready and tested

BUT: Ntuples are not being supported any more need to move the validation procedure to AOD in ARA

Reliable cluster cal hit OOC and DM moments



Local Calibration

Improvement and justification of the truth OOC and truth DM calibration/dm hit energy assigned to every cluster

Theoretical issue: which geometry should we use?

- **received papers from Jimmy on shower shapes ==> to be implemented**
- **I'd like to use the same metric for single pions and jets, or we should explain the choice in terms of the different nature of a cluster in the single particle/jet environment**

In the jet environment the answer can be given from a Jet -> single particle constituents approach

FUTURE: use of Gena's calib hit memory recovery

BUT NOW

Local Calibration

JET <---> SINGLE PIONS LIBRARY APPROACH IS USED

Should this approach be pursuit?

YES :
- can be a debug for first Gena's data
- can provide with basic ideas on the jet topology

NO:
- quite time consuming
- redundancy

If ()

- Need to discuss with Kristin, what she wants/can do
- Need to simulate pions/neutrons/kaons/gammas to have a library for all the stable particles in the truth jet ==> Tancredi doubts about physics list
- Need to produce Ntuples from all of these (don't have the access to full calibration hit container in ESD)

Top all Hadronic

STATUS:
- I still have only data from 13.0.30, would like data from 14.2.X on to have proper Jet Collection
- very basic work done on pT balance at a truth level

LITERATURE:
- Marion's thesis quite pessimistic on this channel with first data (no b tagging)
- Possibility to try a multivariate analysis, but it's hard to test the discriminating power without QCD background simulated data

My opinion:
I'd like to try to reconstruct the top on its combinatorial background, that's already quite huge and nasty, maybe checking some boosted decision tree, while secretly believe in b-tagging....

How to measure QCD background from data????? ***ATLAS-QCD group??***