

Table of Contents

Analysis on Reconstructed DataSet 005003 Files: 000001-001000.....	1
Event information.....	1
Eta Cells HEC.....	1
Generated muons.....	1
Cell Energies for Cosmic Muon Analysis.....	2
EMEC Cell Energies.....	2
NCells above noise:.....	5
ADC effect on EMEC Energies.....	5
HEC Cell Energies.....	6
FCAL Cell Energies.....	7
Tile Cal Cell Energies.....	8
Useful link.....	10
Z profiles (projected on beam axis) of the calorimeters.....	10

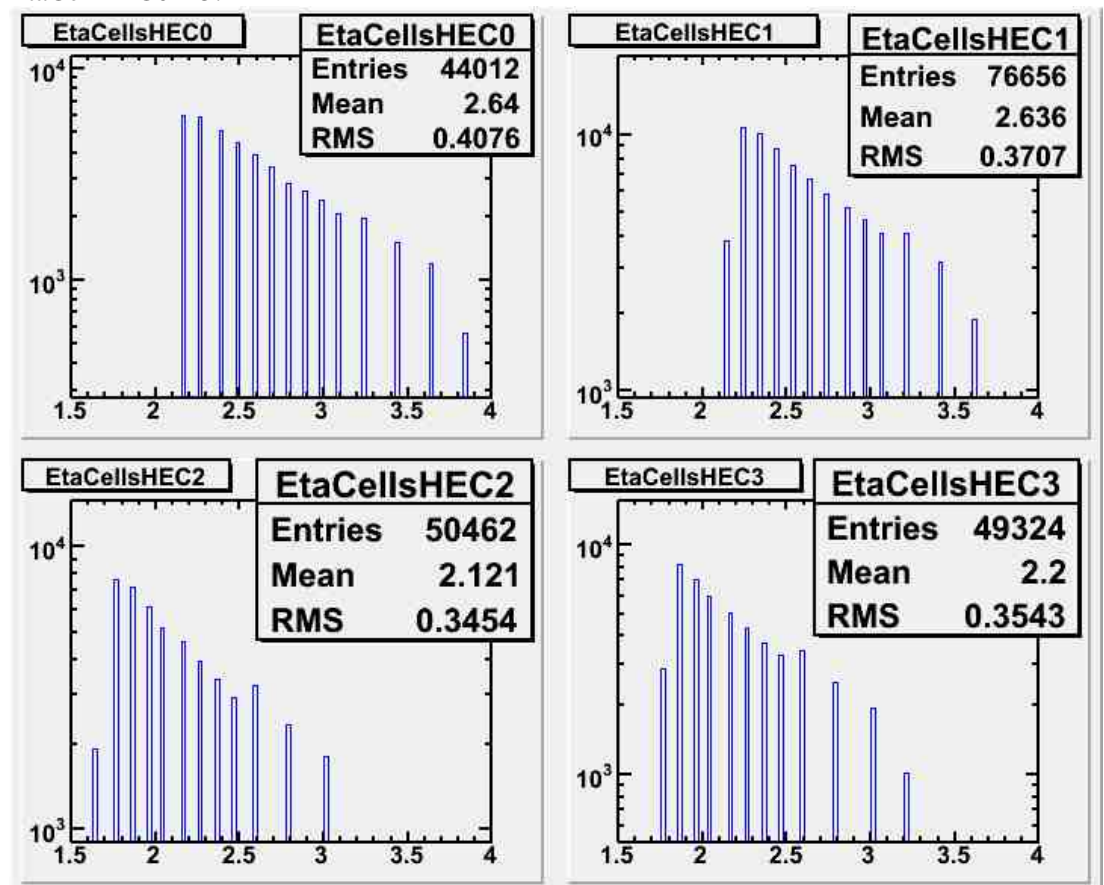
Analysis on Reconstructed DataSet 005003 Files: 000001-001000

Event information

- 1 Million simulated events: 1000 files with 1000 events each that correspond to 539s real time.
- /castor/cern.ch/atlas/project/larg/g4_cosmic/comm.005003/reco_nonoise:
 - ◆ comm.005003.cosmic.reco_ntuple_nonoise.000001-001000.pool.root.tar
- Analysed about 26000 reconstructed events without noise

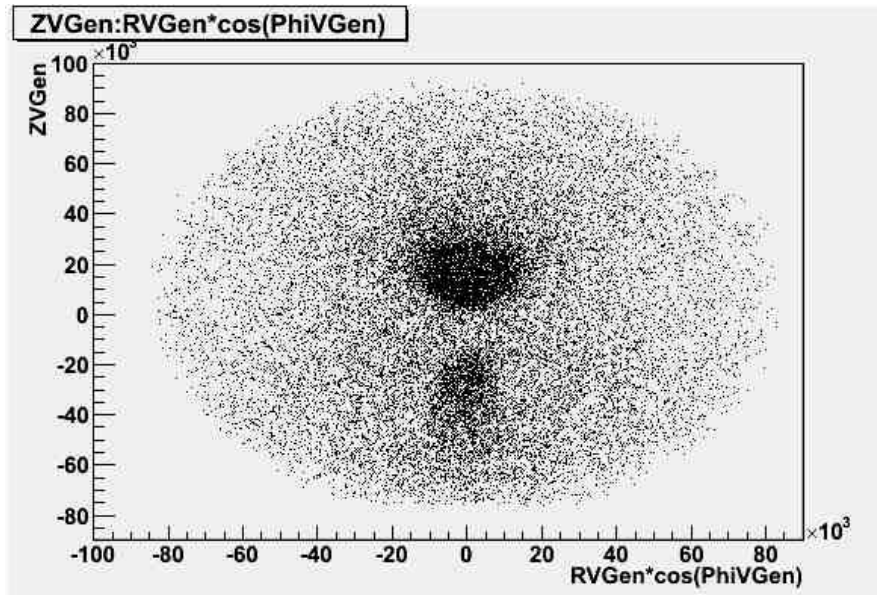
Eta Cells HEC

- The layers 2,3 seems not to be in the garage position
- Plot: Eta Cells HEC Layers 0,1,2,3
 - ◆ EtaCellHEC0123:

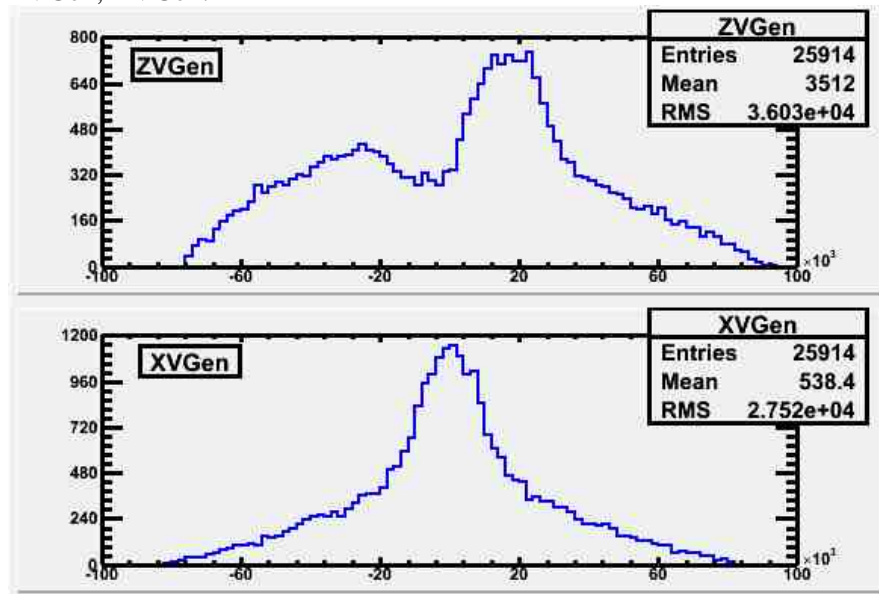


Generated muons

- Plot: Z vs X generated
 - ◆ ZVGen:XVGen.jpg:



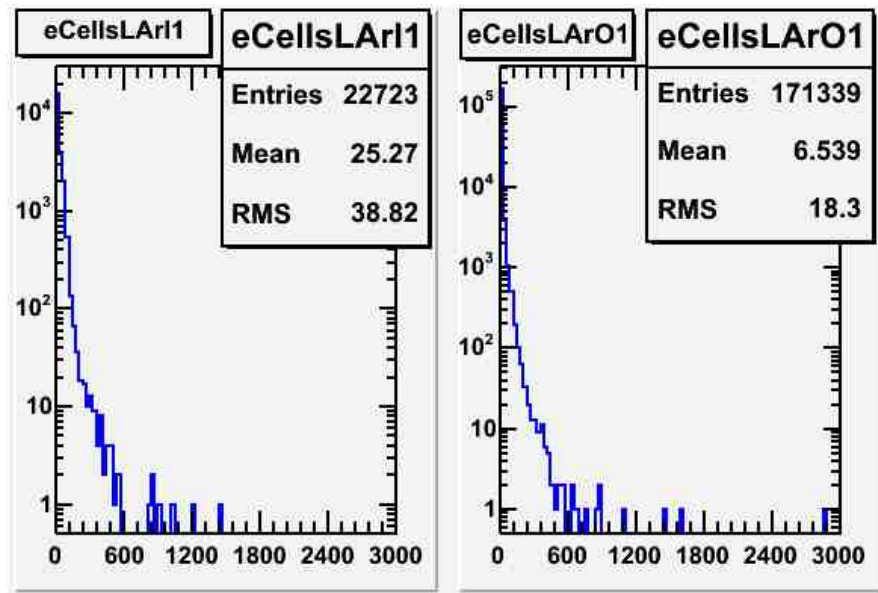
- Plot: Z profile (along beam axis) and X profile (perp to beam axis)
- ♦ ZVGen, XVGen:



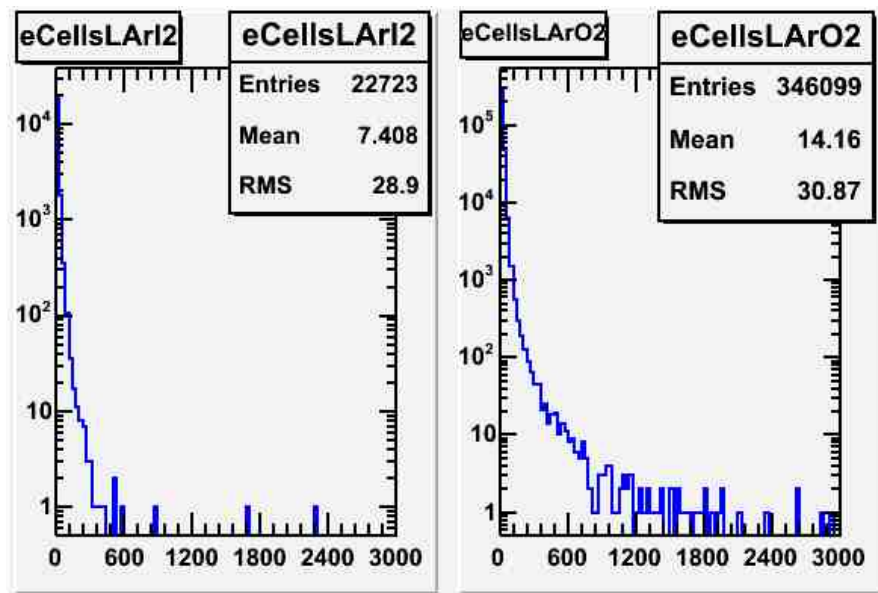
Cell Energies for Cosmic Muon Analysis

EMEC Cell Energies

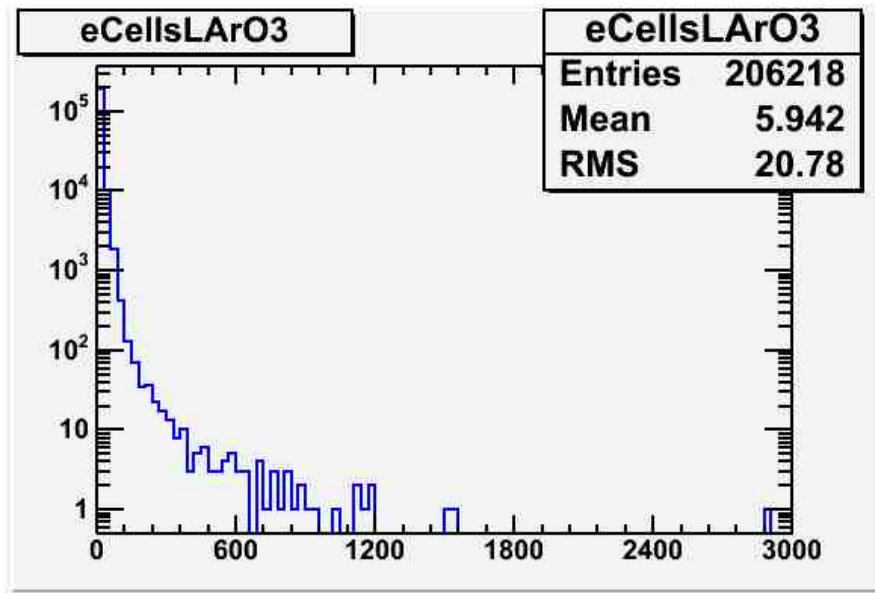
- Plot: EMEC, Layer 1, Inner Endcap, Outer Endcap
- ♦ eCellLArEMECIO1.jpg:



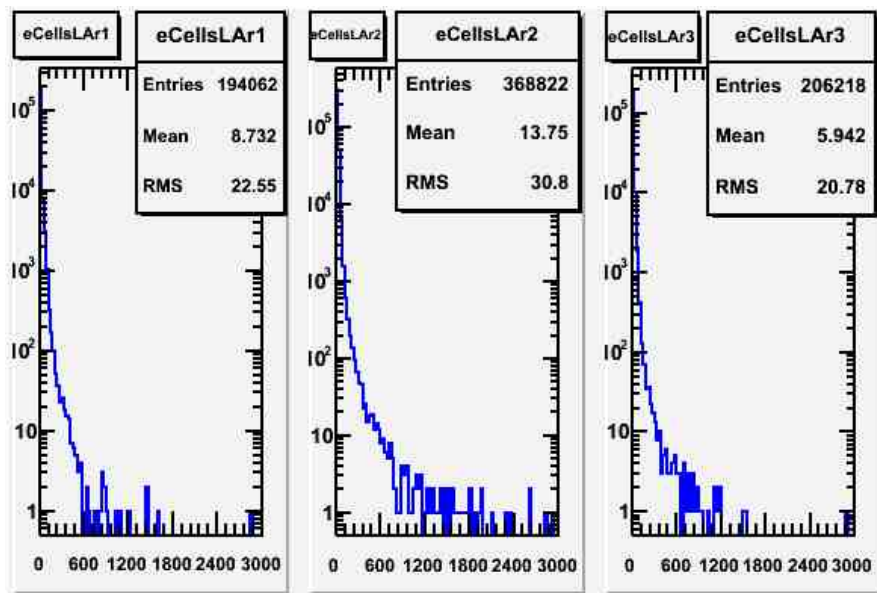
- Plot: EMEC, Layer 2, Inner Endcap, Outer Endcap
- ♦ eCellLArEMECIO2.jpg:



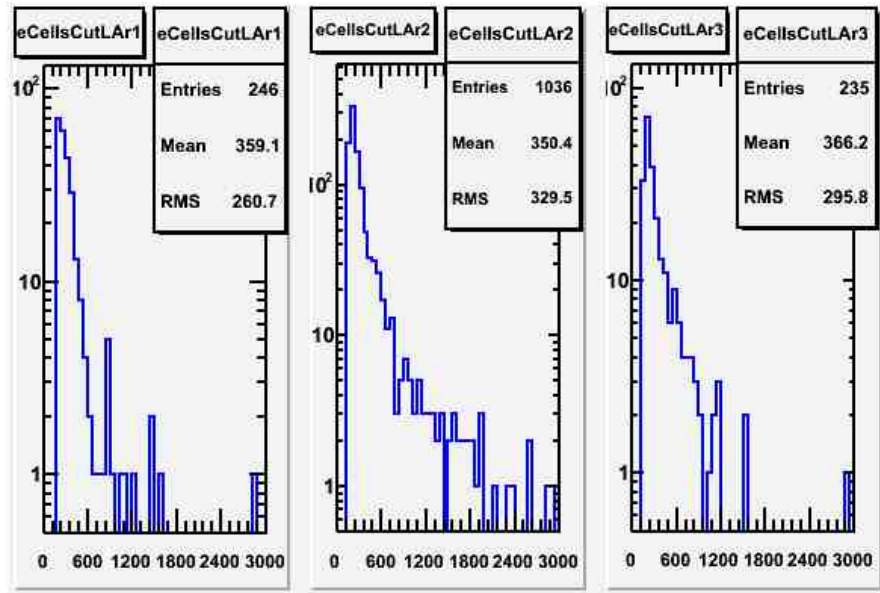
- Plot: EMEC, Layer 3, Outer Endcap
- ♦ eCellLArEMECIO3.jpg:



- Plot: EMEC, Layers 1, 2, 3
 ♦ eCellLArEMEC123.jpg:



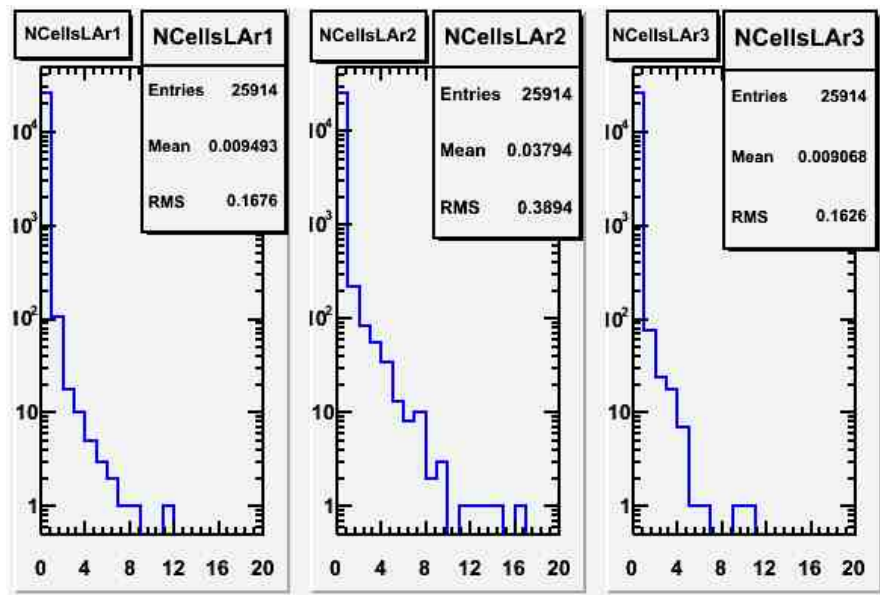
- Plot: EMEC, Layers 1, 2, 3, for EMEC energies above noise: $\text{EMEC-1} > 200 \text{ MeV}$, $\text{EMEC-2} > 150 \text{ MeV}$, $\text{EMEC-3} > 150 \text{ MeV}$
 ♦ eCellCutLArEMEC123.jpg:



NCells above noise:

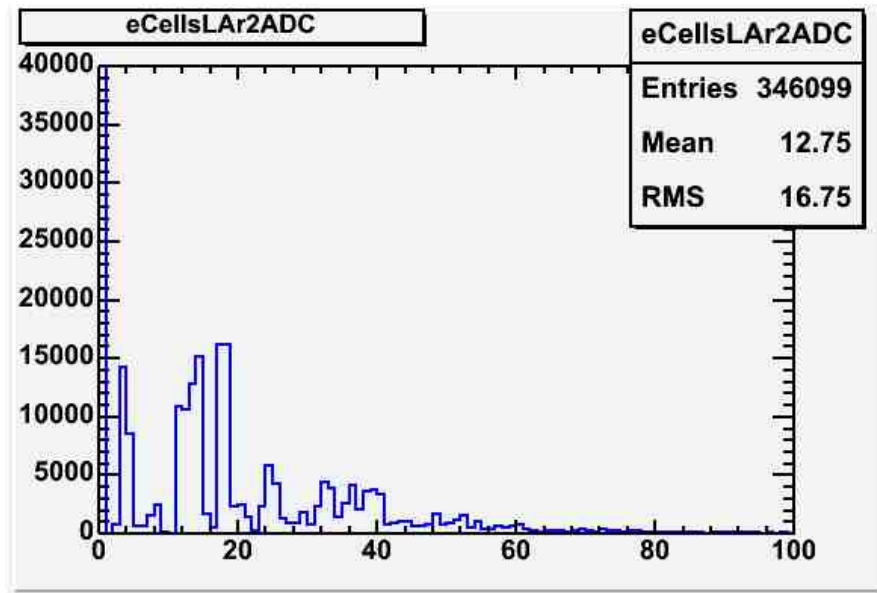
EMEC-1 > 200 MeV, EMEC-2 > 160 MeV, EMEC-3 > 160 MeV

- Plot: NCells, Layer, 1, 2, 3
- ♦ NCellCutLArEMEC123.jpg:



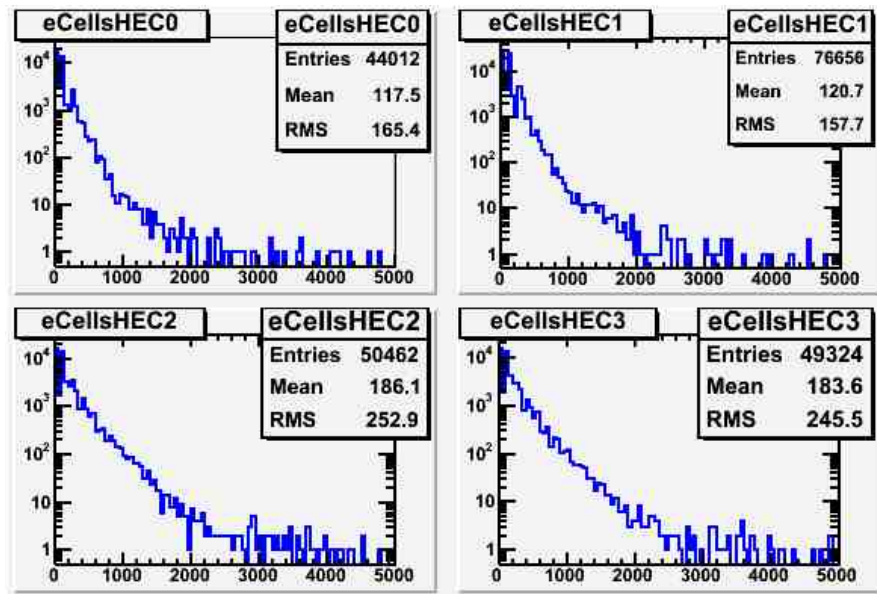
ADC effect on EMEC Energies

- Plot: EMEC, Layer 2, 0 MeV < E < 100 MeV
- ♦ eCellLAr2ADC.jpg:

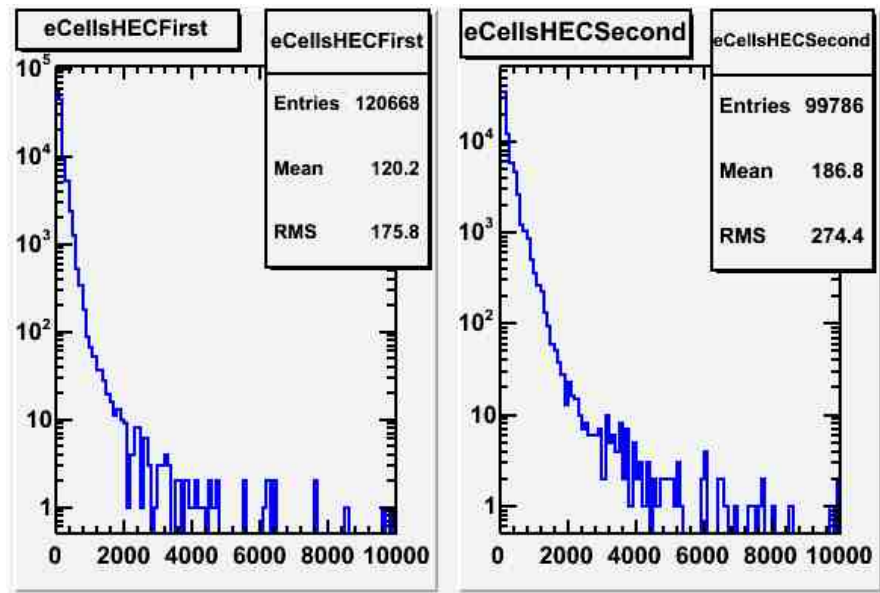


HEC Cell Energies

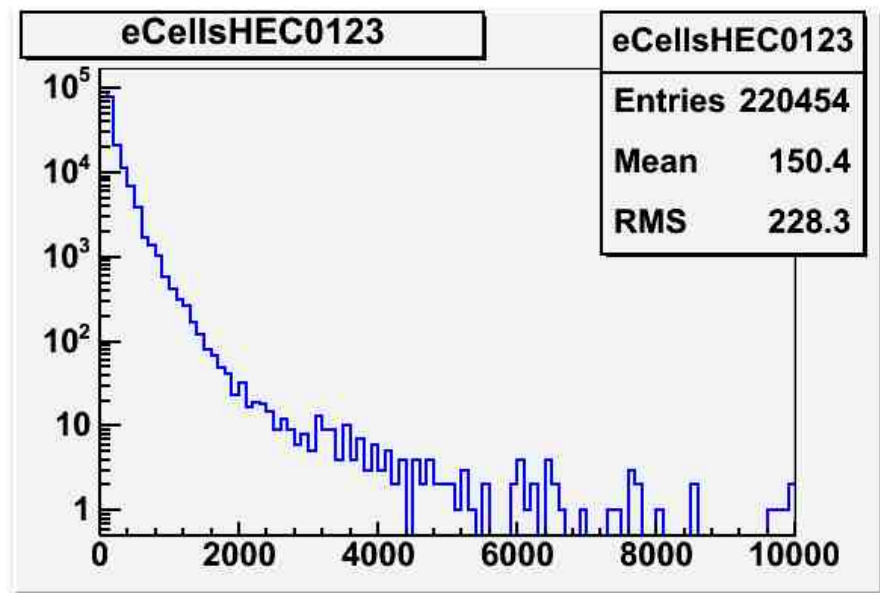
- Plot: HEC, Layers 0, 1, 2, 3
- ♦ eCellHEC0123.jpg:



- Plot: HEC, First wheel, Second Wheel
- ♦ eCellHECFS.jpg:

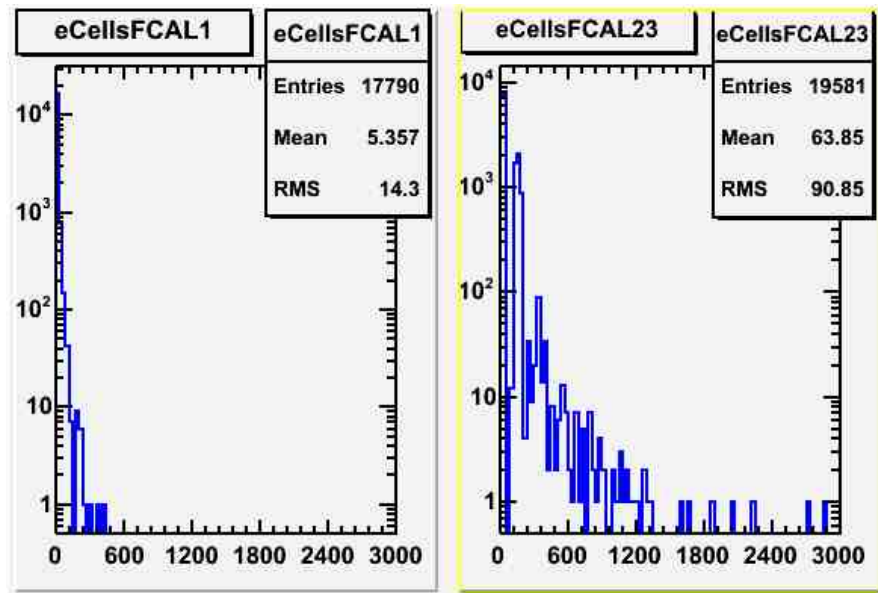


- Plot: HEC
- ♦ eCellHEC.jpg:

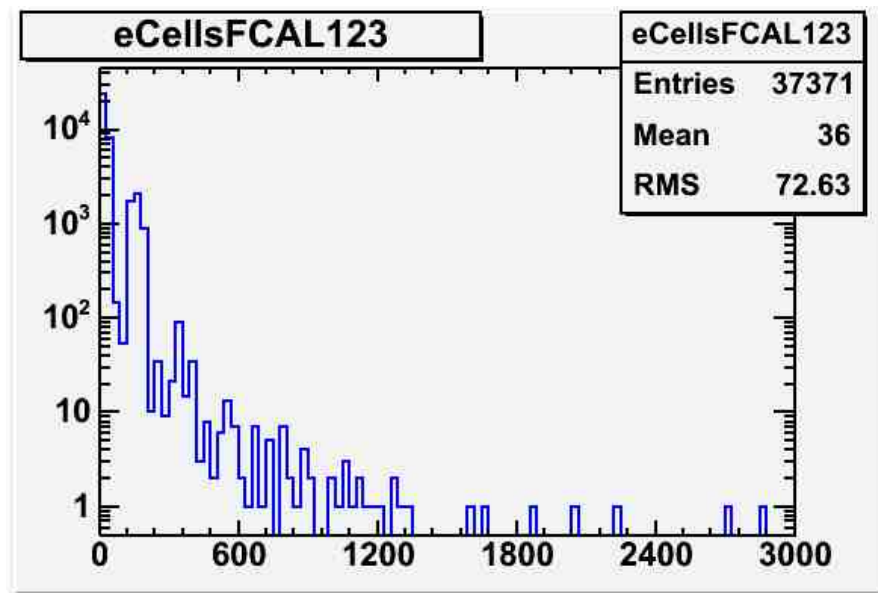


FCAL Cell Energies

- Plot: FCAL, EM, (Module 1), HAD, (Module 2, 3)
- ♦ eCellFCAL-EM-HAD.jpg:

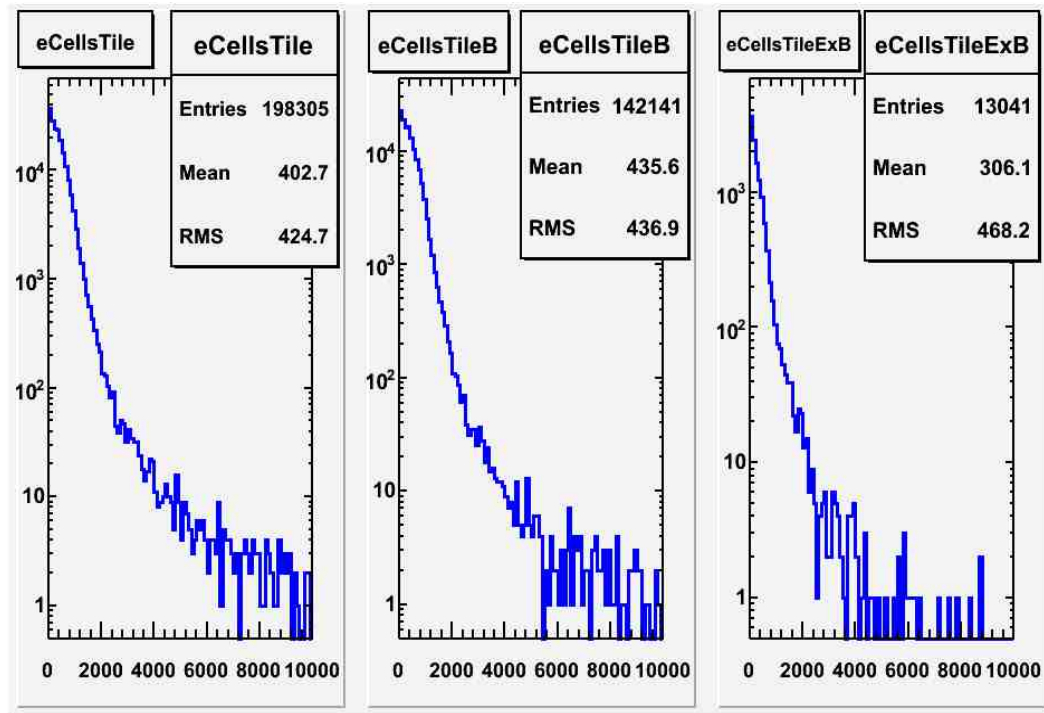


- Plot: FCAL
- ♦ eCellFCAL.jpg:

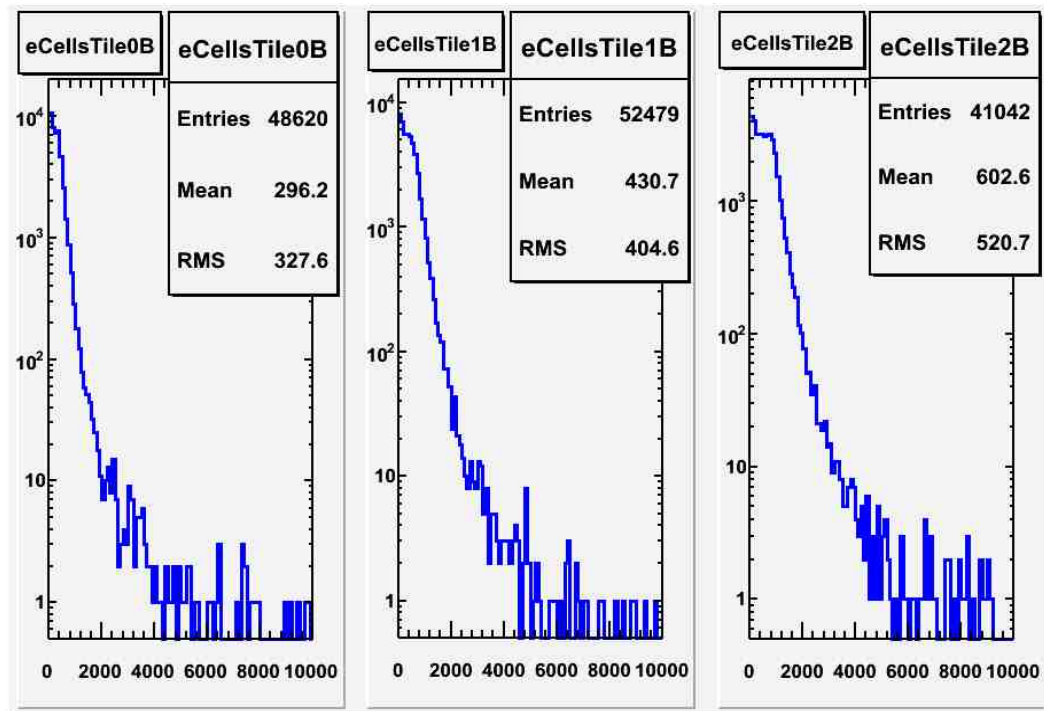


Tile Cal Cell Energies

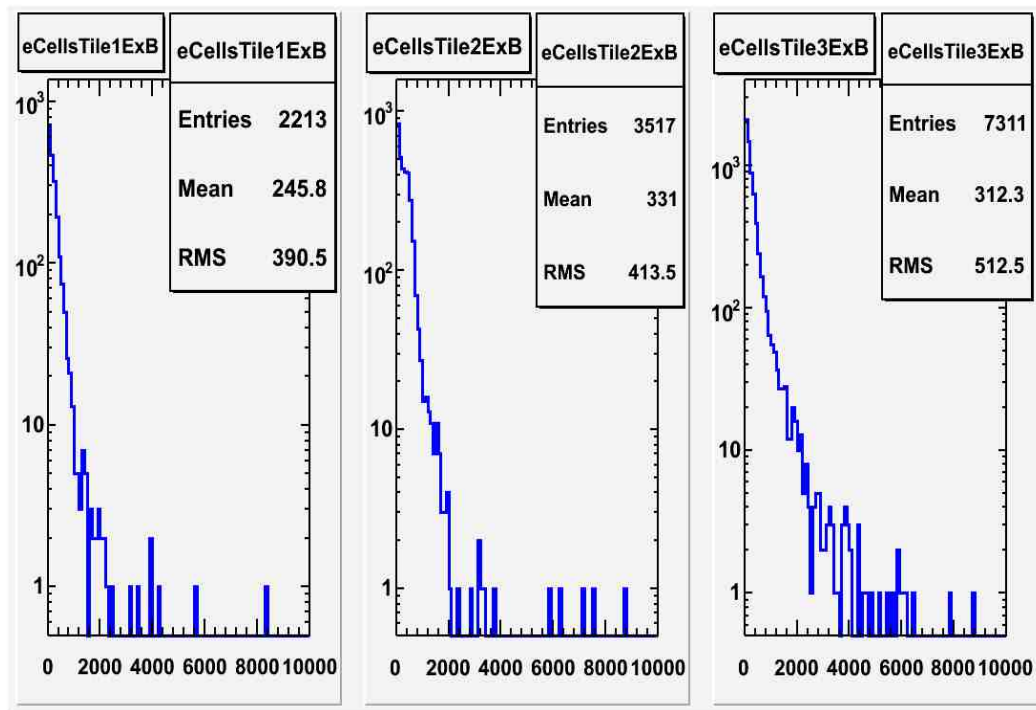
- Plot: Tile, Tile Barrel, Tile Extended Barrel
- ♦ ECells Tile-Tile Barrel-Tile Extended Barrel:



- Plot: Tile Barrel, Samplings 0,1,2
- ◆ ECells Tile Barrel Sampling 0,1,2:



- Plot: Tile Extended Barrel, Samplings 1,2,3
- ◆ ECells Tile Extended Barrel, Samplings 1,2,3:

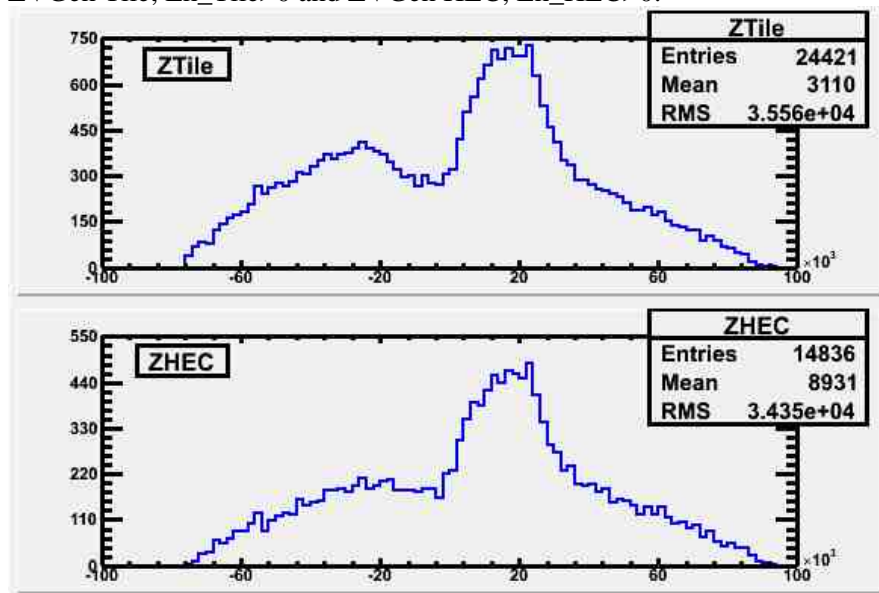


Useful link

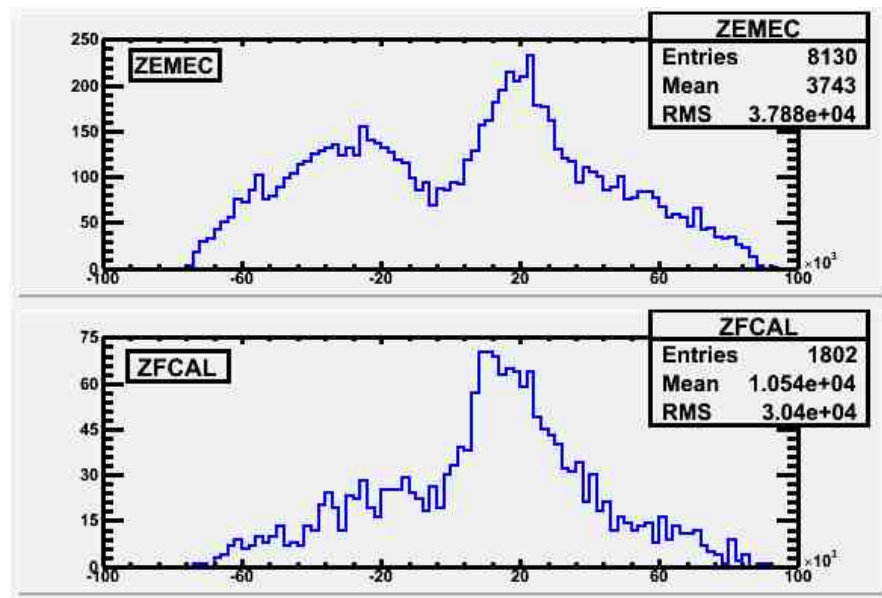
http://atlas.web.cern.ch/Atlas/GROUPS/LIQARGSOFF/Reconstruction/Code/Various_text_files/ntup_calocells.html

Z profiles (projected on beam axis) of the calorimeters

- Tile Cal, HEC
 - ◆ ZVGen Tile, Eh_Tile>0 and ZVGen HEC, Eh_HEC>0:



- EMEC and FCAL
 - ◆ ZVGen EMEC, Eh_EMEC>0 and ZVGen FCAL, Eh_FCAL>0:



-- TheodotaLagouri - 26 Oct 2006

This topic: Main > LArMECCosmicMuons

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