

Test beam analysis update

Itamar Levy

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Converting the raw data

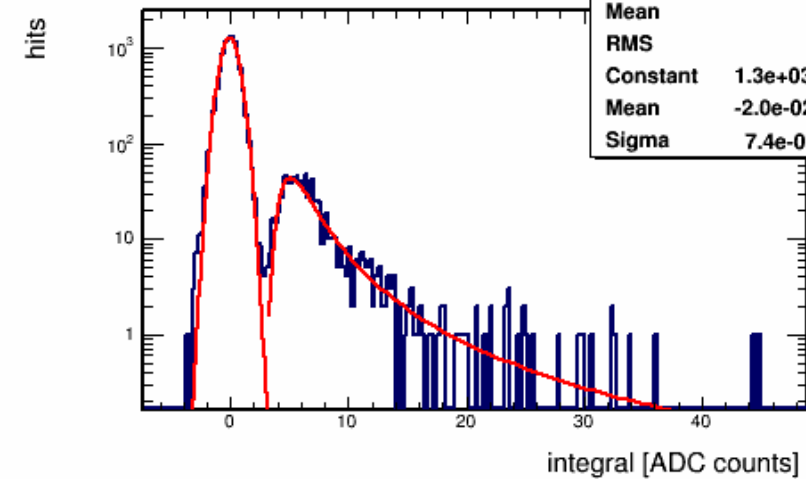
- In the FCAL repository I will add a light version of the EUDAQ we used (also can get from grid).
- There is a converter plug-in for the fcal boards and for the AUX device (FcalAUX), as part of the system.
- I add a file writer to convert .rew files to root files using the system.
- You need to have the file FileWriterFCALRoot.cc and main/src before compiling.
- To run you : from the /bin/ use ./Converter.exe -s -t fcal-root <run number>
- Raw data need to be at the /data
- The -s is for synchronization between fcal and AUX according to TLU number (but it is limited).

Root file

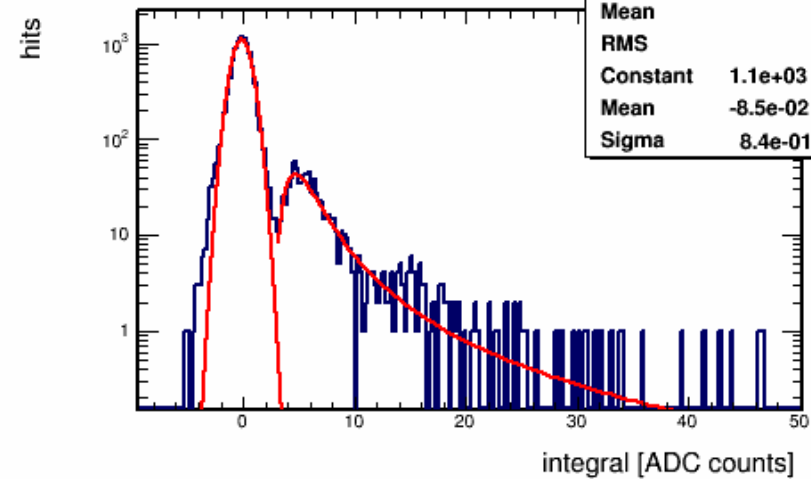
- Each entry in the root file is 1 channel (1 pad), so 128 entries are 1 trigger.
- The Root file contains :
 - Plane (0-4).
 - Channel (0-31).
 - X (0-1).
 - Y(0-17).
 - time stamp
 - Tlu number from fcal
 - Tlu number from AUX
 - Is sync?
 - Run number
 - Data array of 32 samples.
 - Frame counter (for sync with MIMOSA)

MuSignals plane 0 channel 4

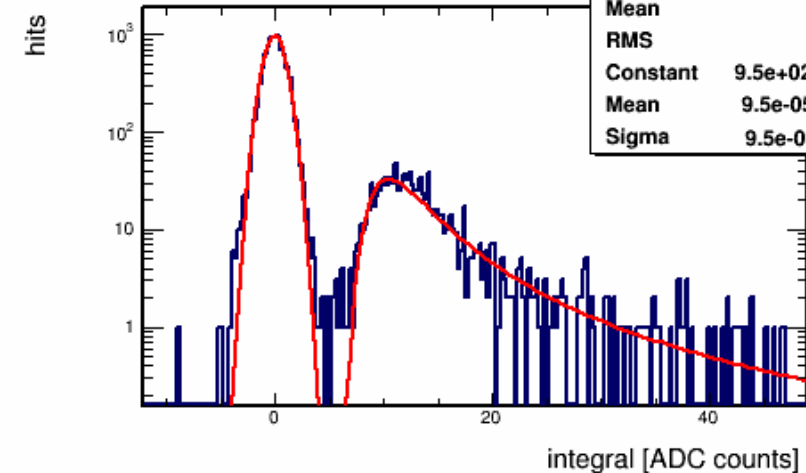
MuSignals0_4	
Entries	10216
Mean	0.5517
RMS	2.534
Constant	$1.3e+03 \pm 1.7e+01$
Mean	$-2.0e-02 \pm 7.7e-03$
Sigma	$7.4e-01 \pm 6.3e-03$

**MuSignals plane 3 channel 4**

MuSignals3_4	
Entries	10216
Mean	0.5187
RMS	2.843
Constant	$1.1e+03 \pm 1.5e+01$
Mean	$-8.5e-02 \pm 8.8e-03$
Sigma	$8.4e-01 \pm 7.9e-03$

**MuSignals plane 0 channel 24**

MuSignals0_24	
Entries	10216
Mean	1.453
RMS	4.888
Constant	$9.5e+02 \pm 1.3e+01$
Mean	$9.5e-05 \pm 1.0e-02$
Sigma	$9.5e-01 \pm 8.0e-03$

**MuSignals plane 3 channel 24**

MuSignals3_24	
Entries	10216
Mean	1.575
RMS	5.206
Constant	$7.4e+02 \pm 1.1e+01$
Mean	$2.2e-02 \pm 1.3e-02$
Sigma	$1.2e+00 \pm 0.0$

