

# Retrieving Calorimeter Information

Ron Cassell

1/14/10

# CalorimeterInformation and CallInfoDriver

- Classes are in `cvs, org.lcsim.recon.util`
- Keyed on enumeration of calorimeter types, get methods also allow string
- Need to add field to compact description to work, code already in `GeomConverter` to use it. (Jeremy)
- Currently gives access to `CollectionName`, `DigiCollectionName`, `Calorimeter`, `IDDecoder`, `systemID`, `(R,Z)X(min,max)`, etc.
- Expandable
- Need to write test program

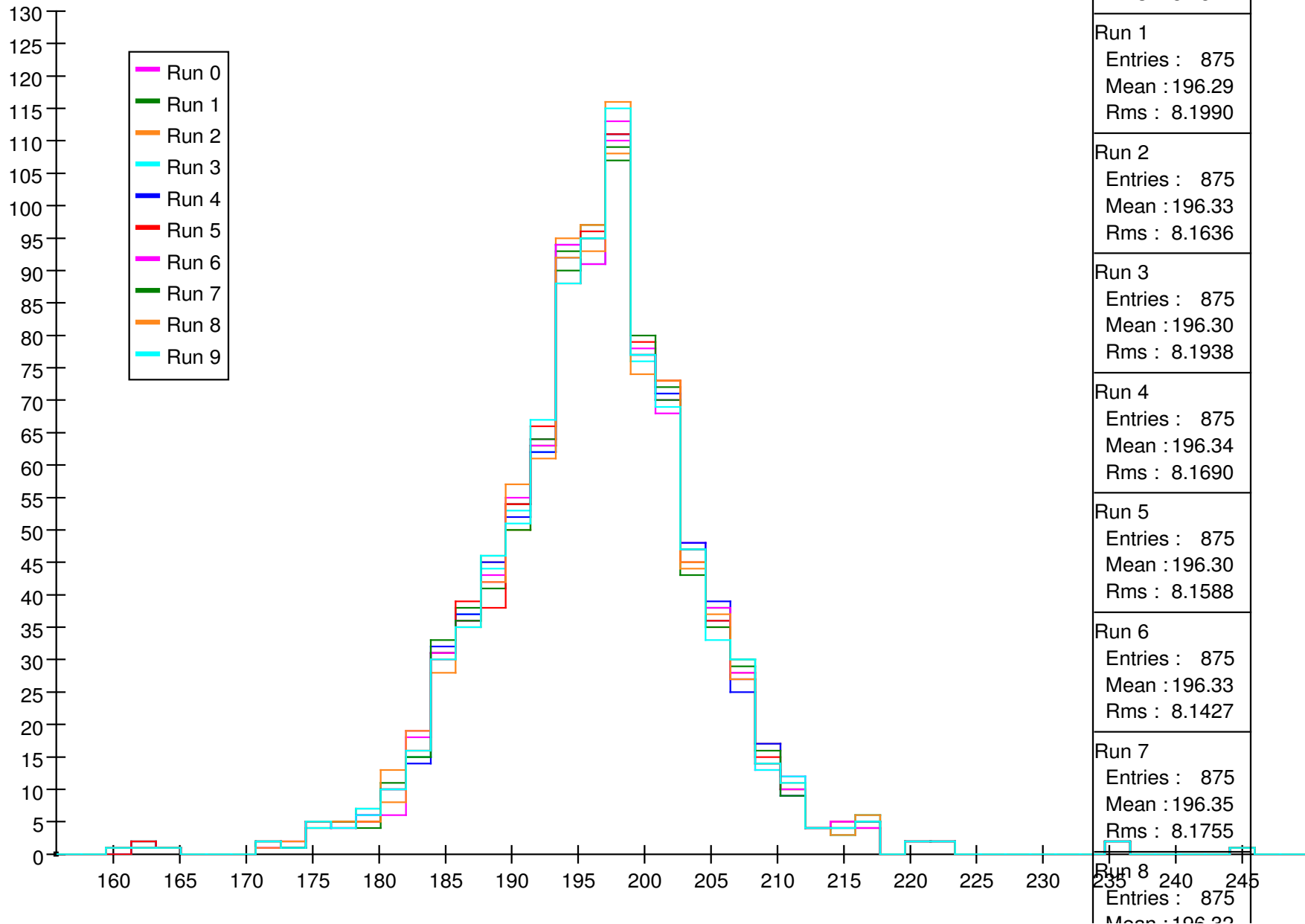
# Proposal

- Change all hard coded collection names, system IDs, R and Z parameters to use utility.
- Show identical results with existing PFA on sid02.
- Commit to org.lcsim

# Problem

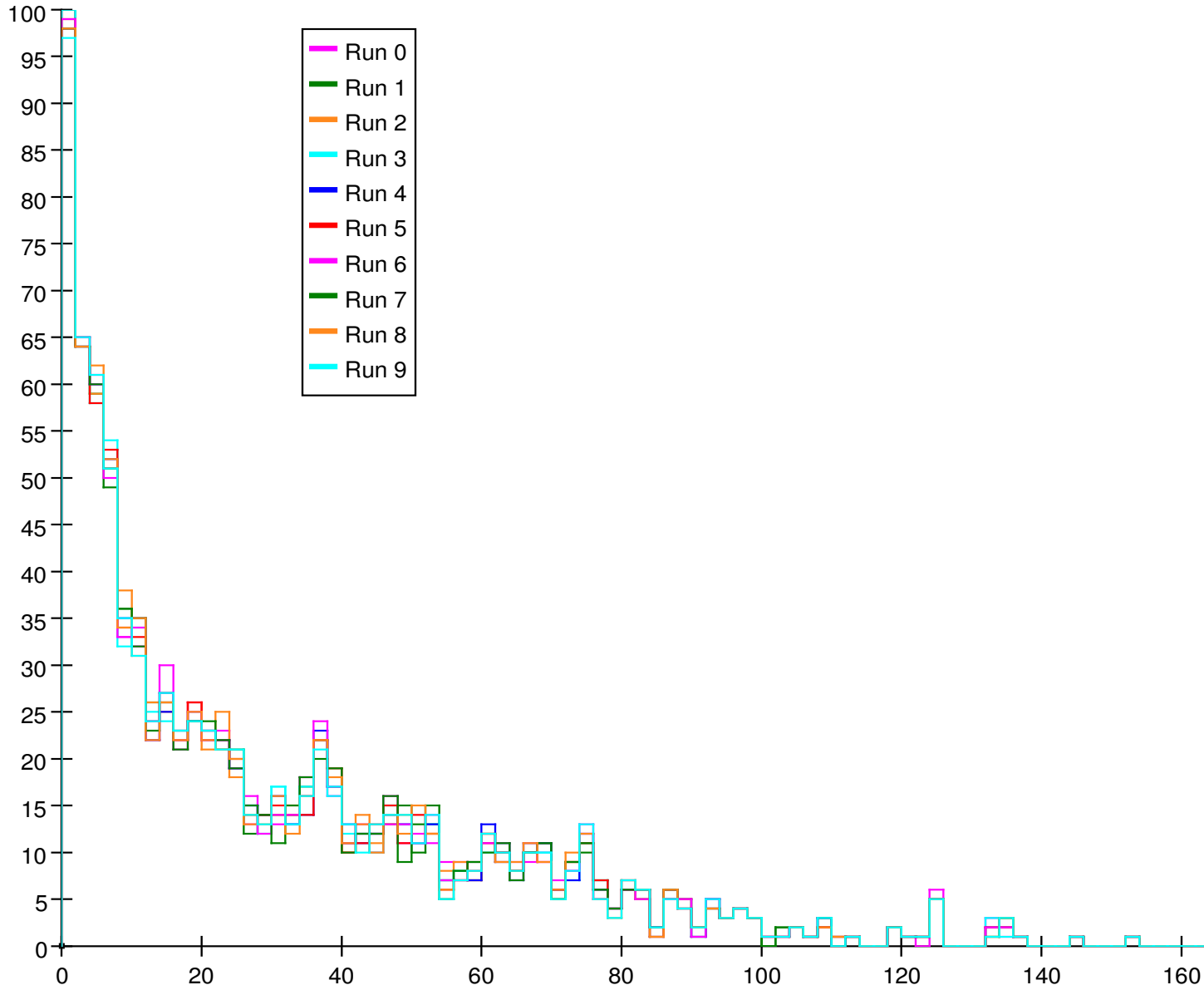
- Results not identical. Upon investigation found results not repeatable with existing code.
- Ran reconstruction on 1000 qq200 events, repeated 10 times on same sample.

repeattestdist.aida - Event energy





### repeattestdist.aida - nh Event energy

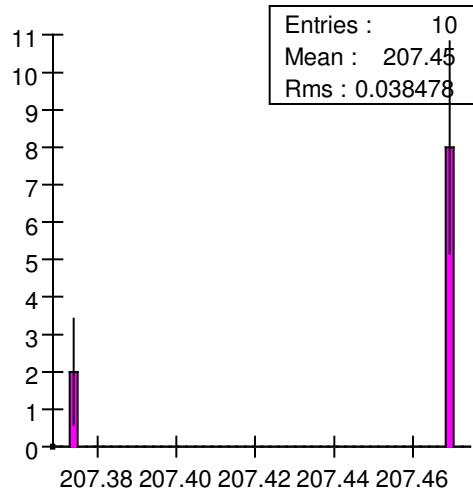


Run 0	Entries : 875
	Mean : 30.283
	Rms : 30.745
Run 1	Entries : 875
	Mean : 30.279
	Rms : 30.723
Run 2	Entries : 875
	Mean : 30.291
	Rms : 30.706
Run 3	Entries : 875
	Mean : 30.301
	Rms : 30.759
Run 4	Entries : 875
	Mean : 30.305
	Rms : 30.728
Run 5	Entries : 875
	Mean : 30.265
	Rms : 30.731
Run 6	Entries : 875
	Mean : 30.307
	Rms : 30.720
Run 7	Entries : 875
	Mean : 30.311
	Rms : 30.747
Run 8	Entries : 875
Run 9	Entries : 875

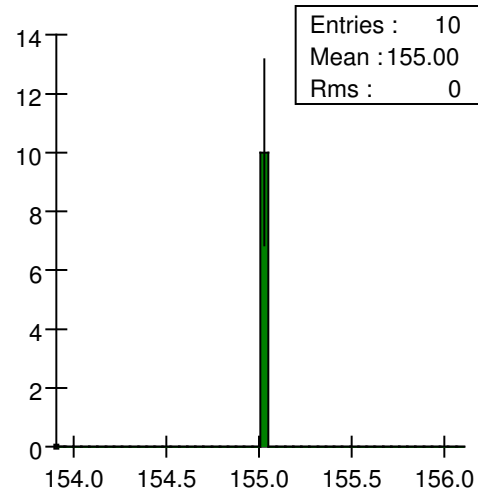




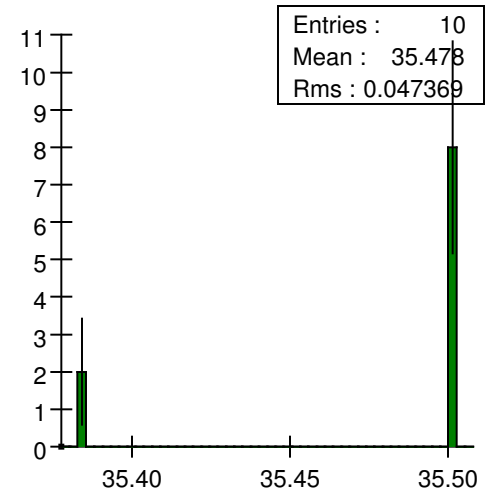
Event 7/Event energy



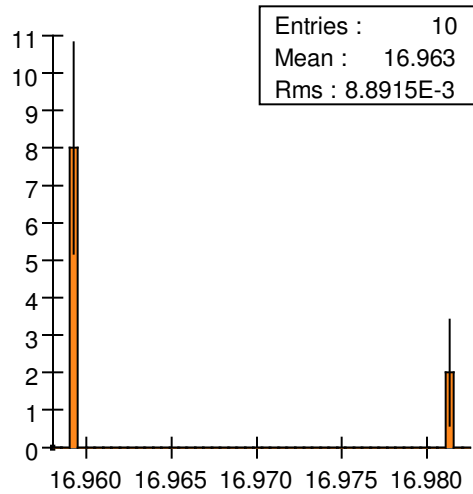
Event 7/ch Event energy



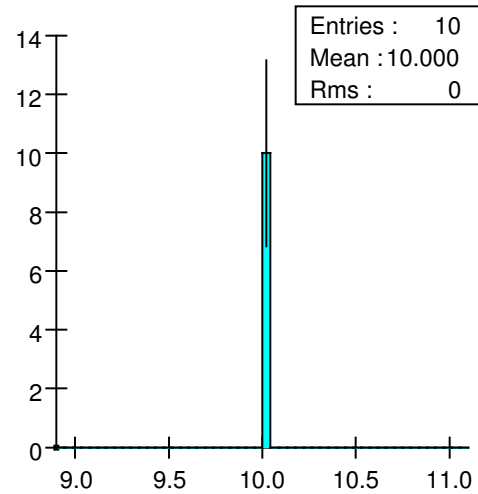
Event 7/ph Event energy



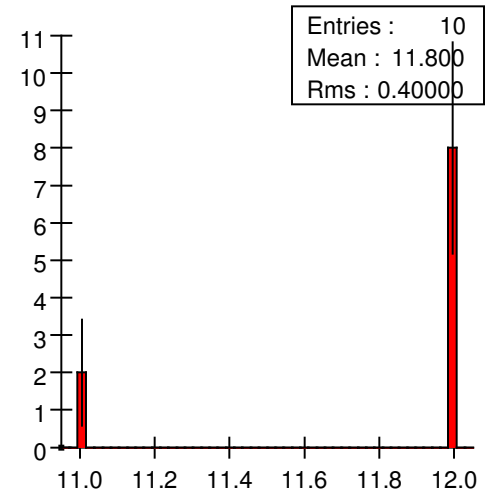
Event 7/nh Event energy



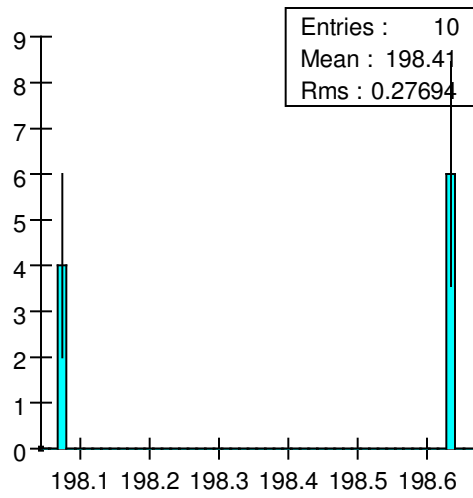
Event 7/# nh particles



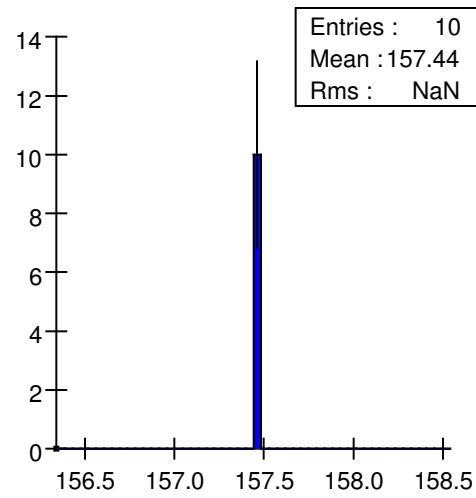
Event 7/# ph particles



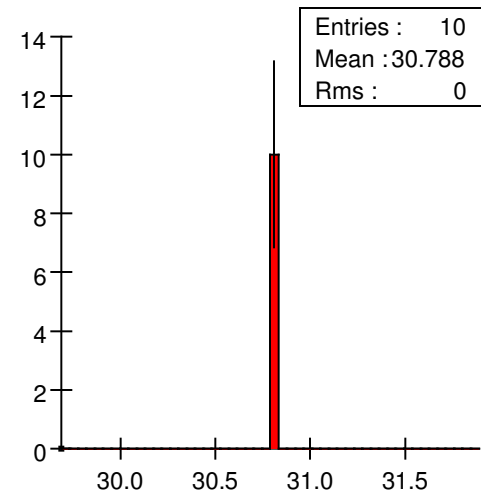
Event 12/Event energy



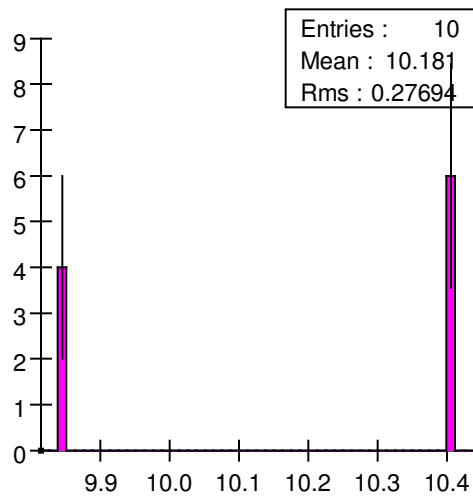
Event 12/ch Event energy



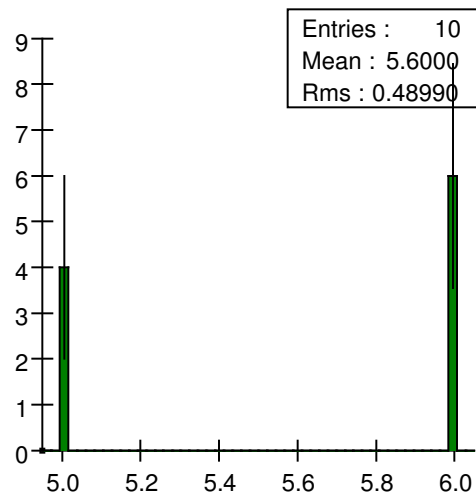
Event 12/ph Event energy



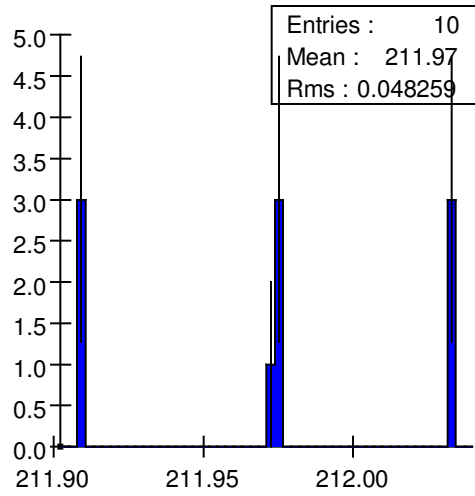
Event 12/nh Event energy



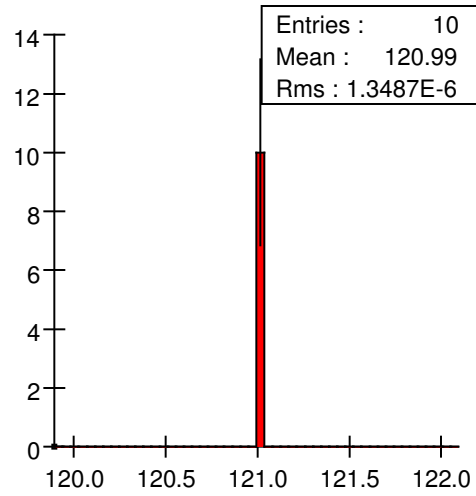
Event 12/# nh particles



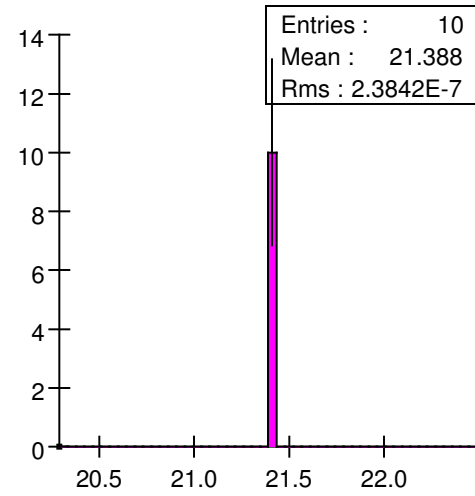
Event 21/Event energy



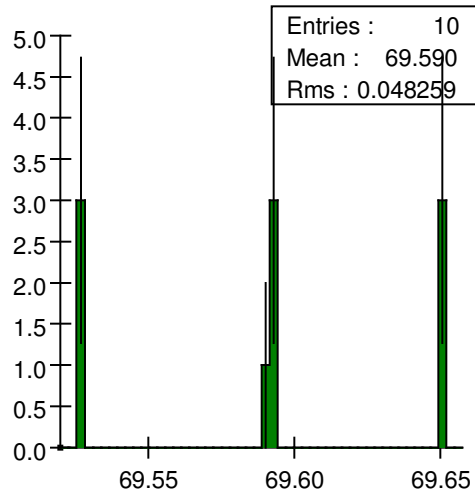
Event 21/ch Event energy



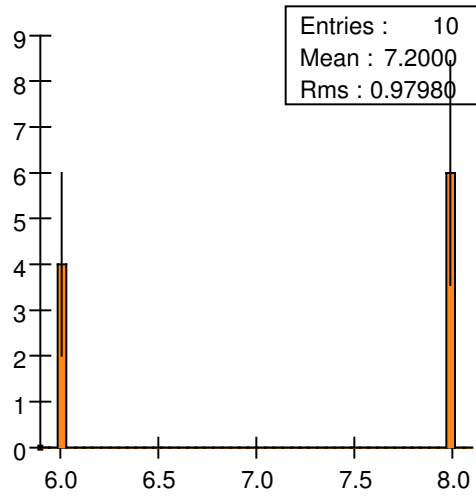
Event 21/ph Event energy



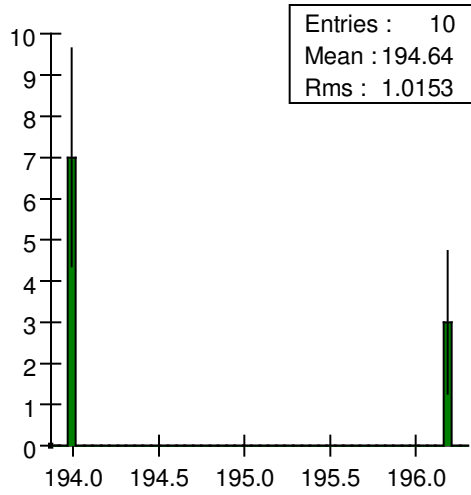
Event 21/nh Event energy



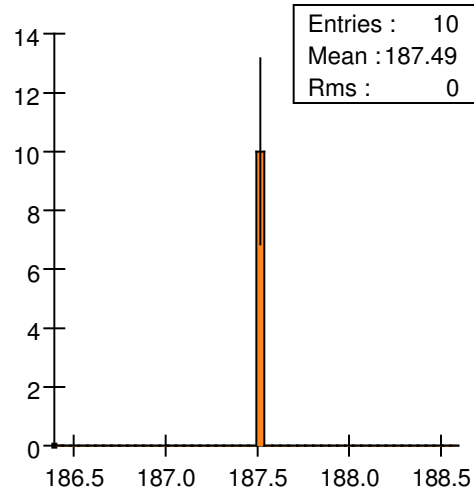
Event 21/# nh particles



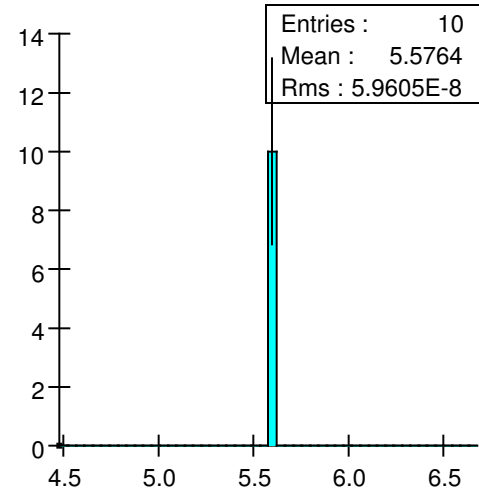
Event 26/Event energy



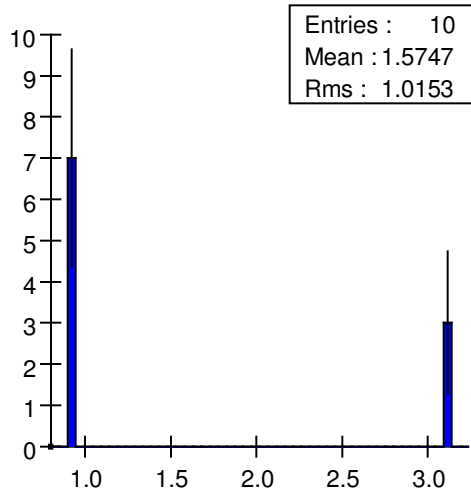
Event 26/ch Event energy



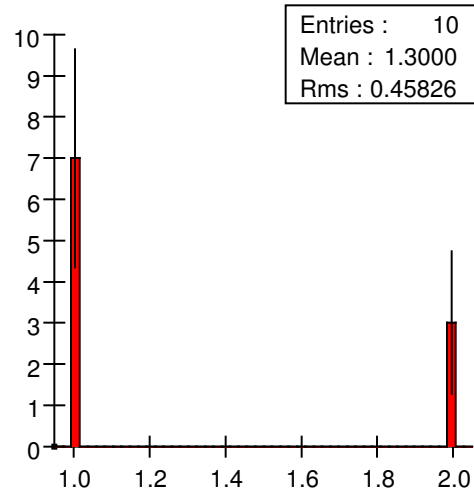
Event 26/ph Event energy



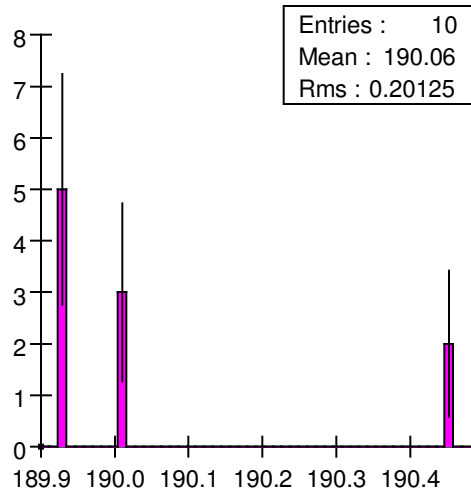
Event 26/nh Event energy



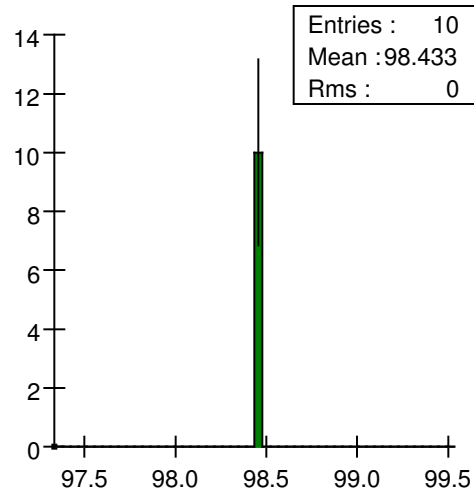
Event 26/# nh particles



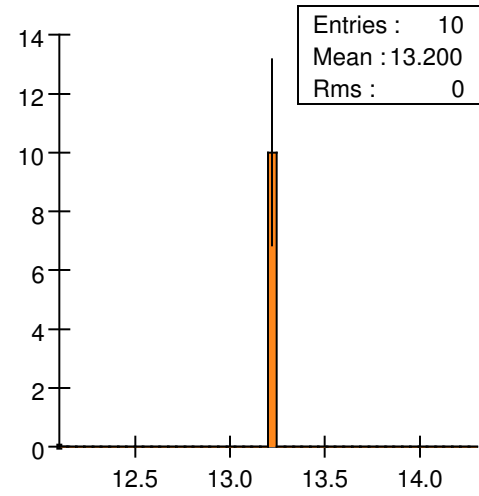
Event 30/Event energy



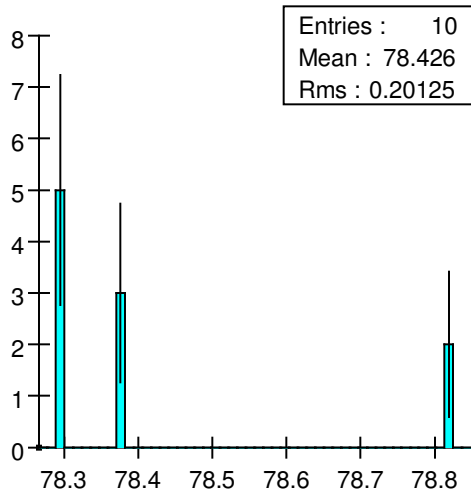
Event 30/ch Event energy



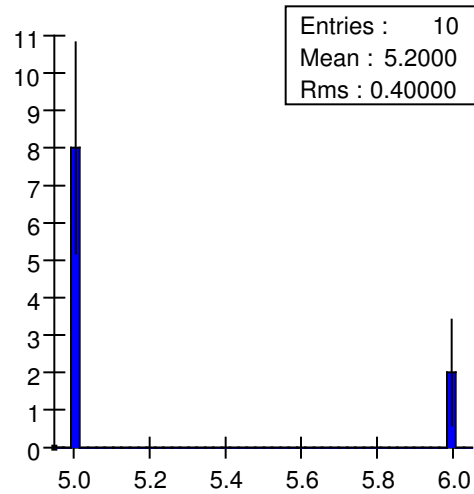
Event 30/ph Event energy



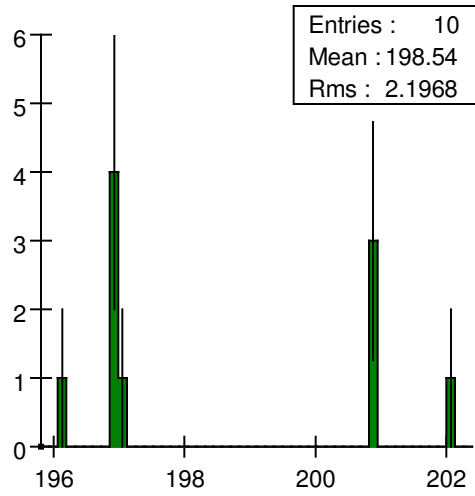
Event 30/nh Event energy



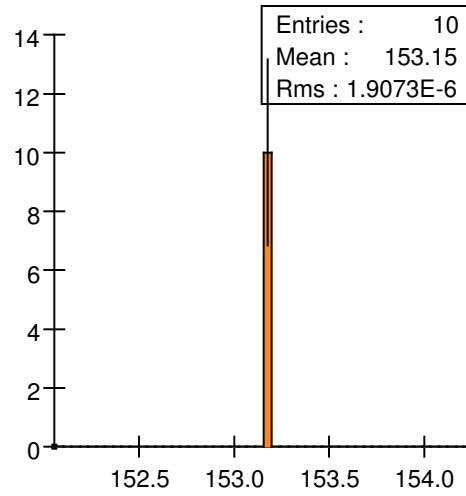
Event 30/# nh particles



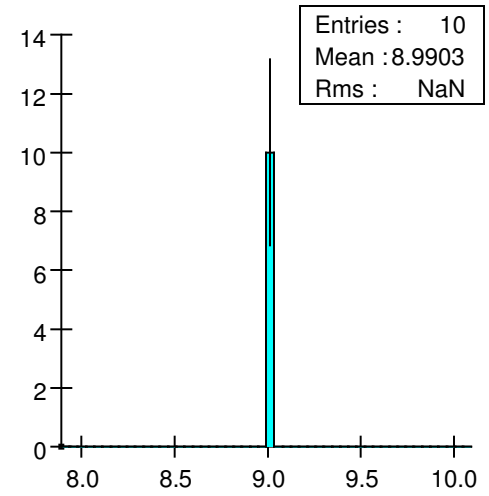
Event 34/Event energy



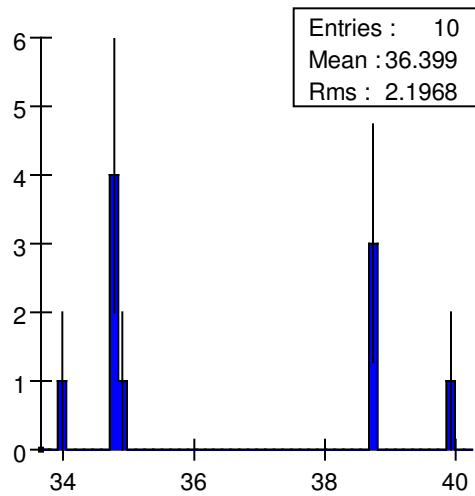
Event 34/ch Event energy



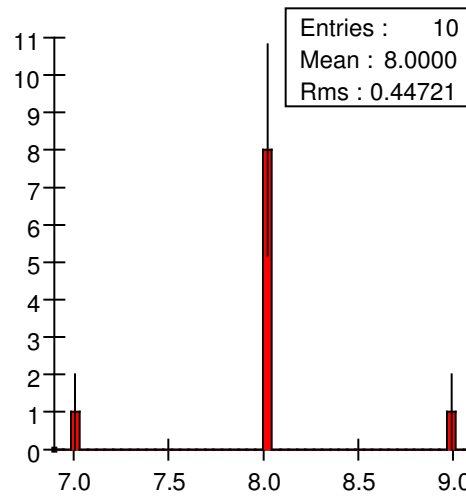
Event 34/ph Event energy



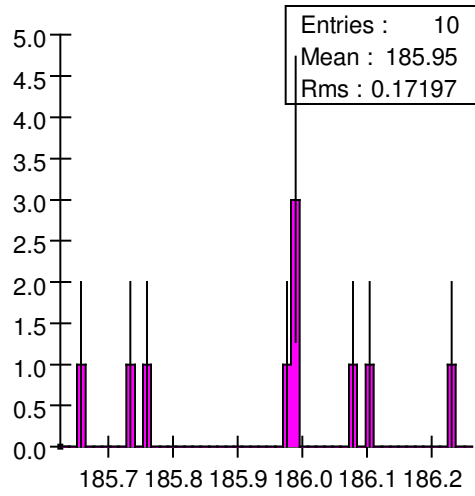
Event 34/nh Event energy



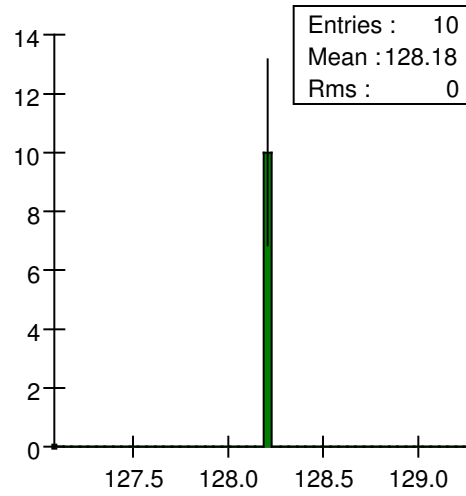
Event 34/# nh particles



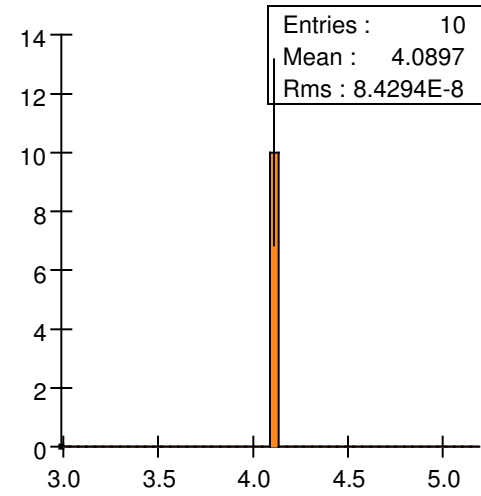
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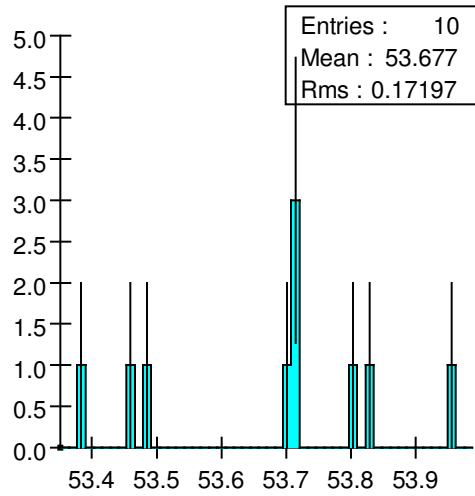
Event 35/ch Event energy



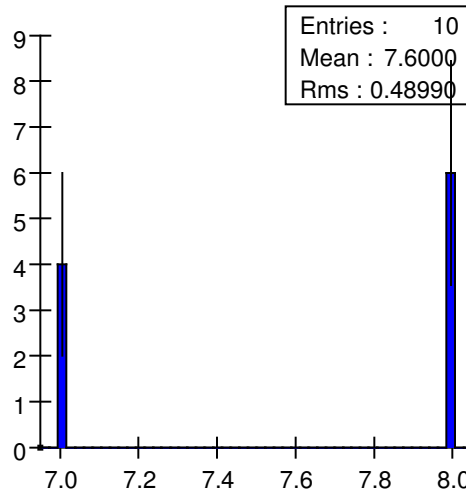
Event 35/ph Event energy



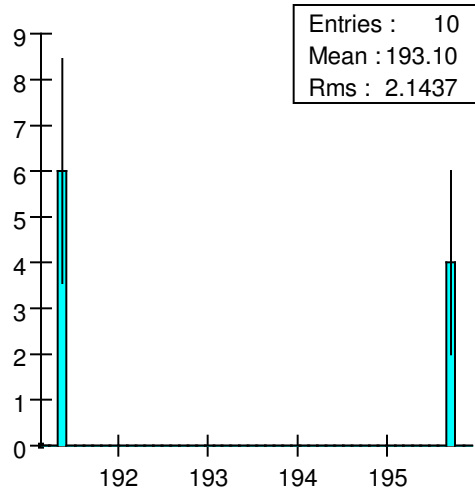
Event 35/nh Event energy



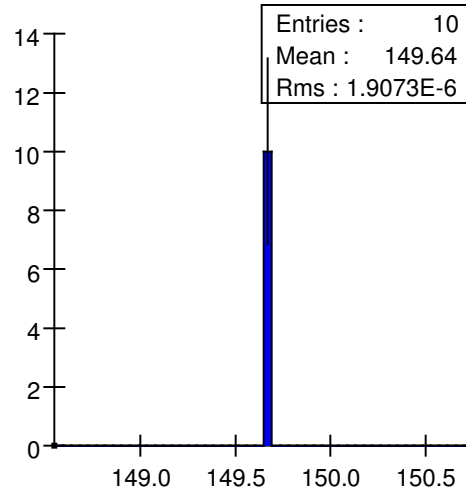
Event 35/# nh particles



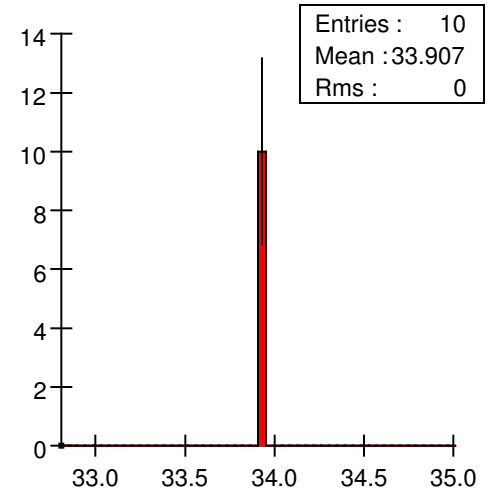
Event 40/Event energy



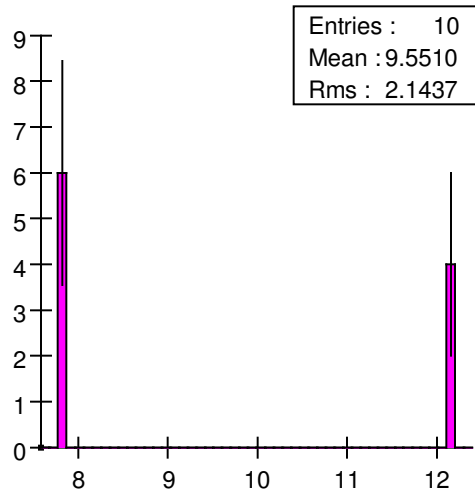
Event 40/ch Event energy



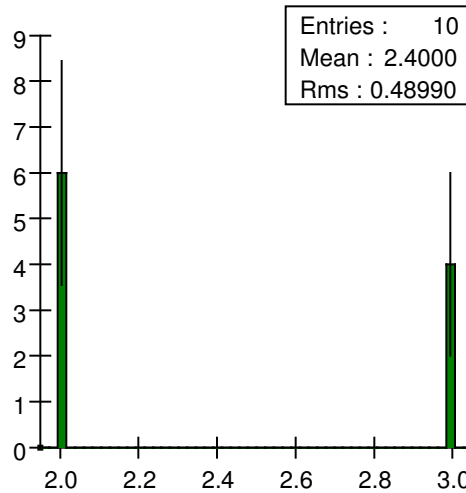
Event 40/ph Event energy



Event 40/nh Event energy

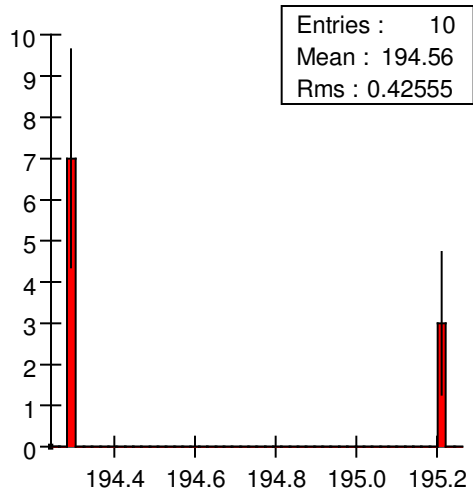


Event 40/# nh particles

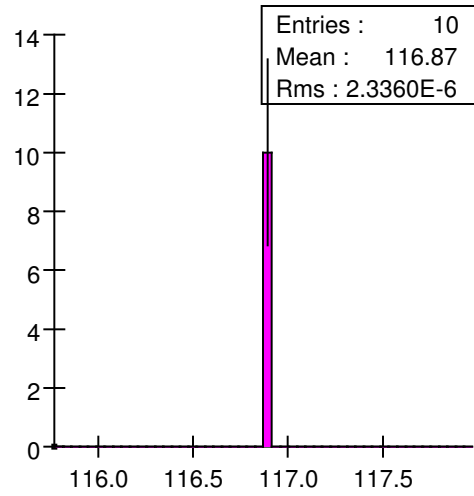




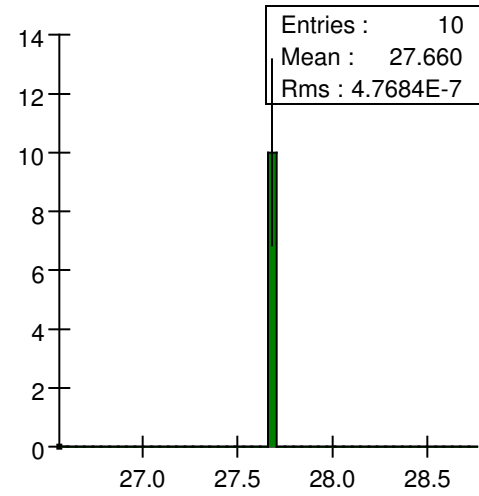
Event 48/Event energy



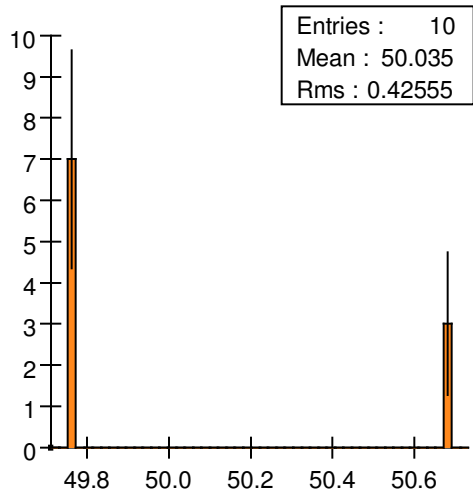
Event 48/ch Event energy



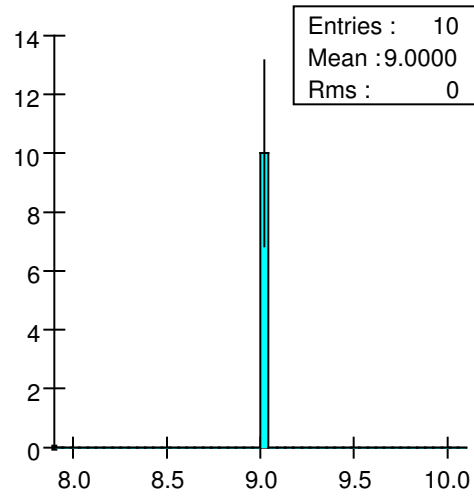
Event 48/ph Event energy



Event 48/nh Event energy



Event 48/# nh particles



- 9 events out of 50 where # neutral hadrons was not constant for 10 runs