Energy distributions in HO – TB2006

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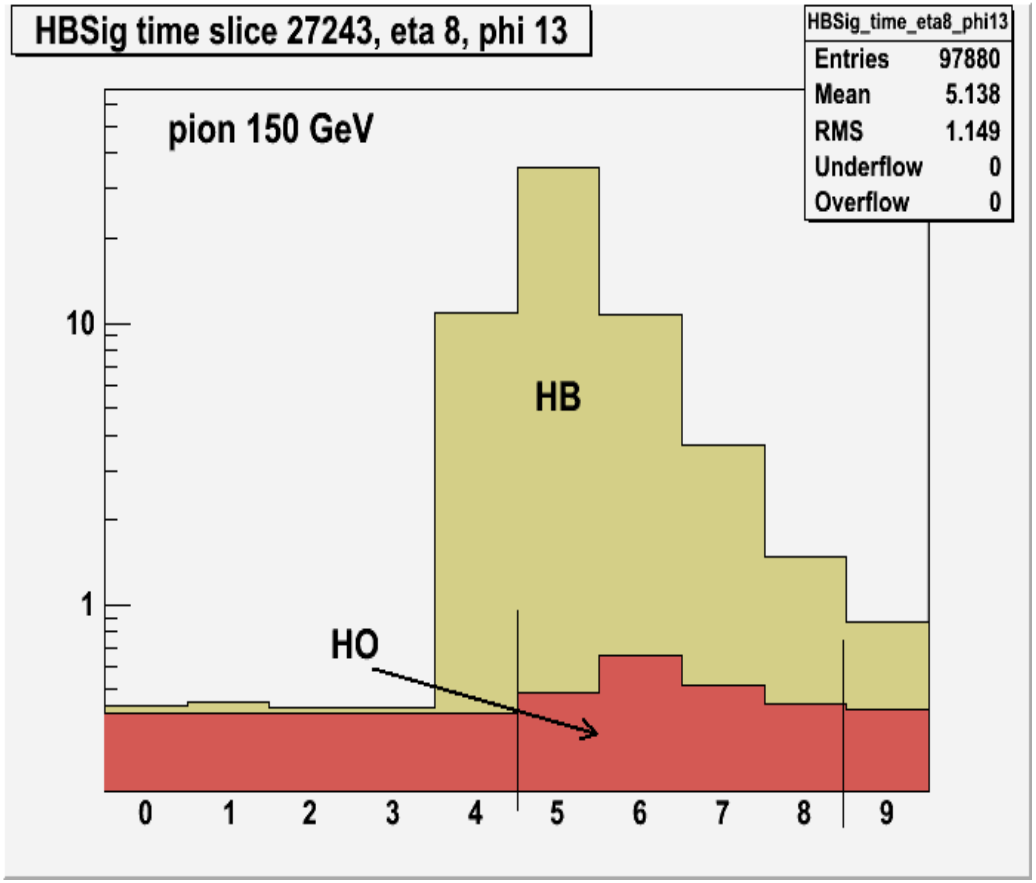
- In one of the meetings it was reported that HO energy is coming out to be negative.
- The reason was found out to be that the HO calibration constants were not correctly loaded and used in the releases of CMSSW_0_8_0 and CMSSW_0_8_1.

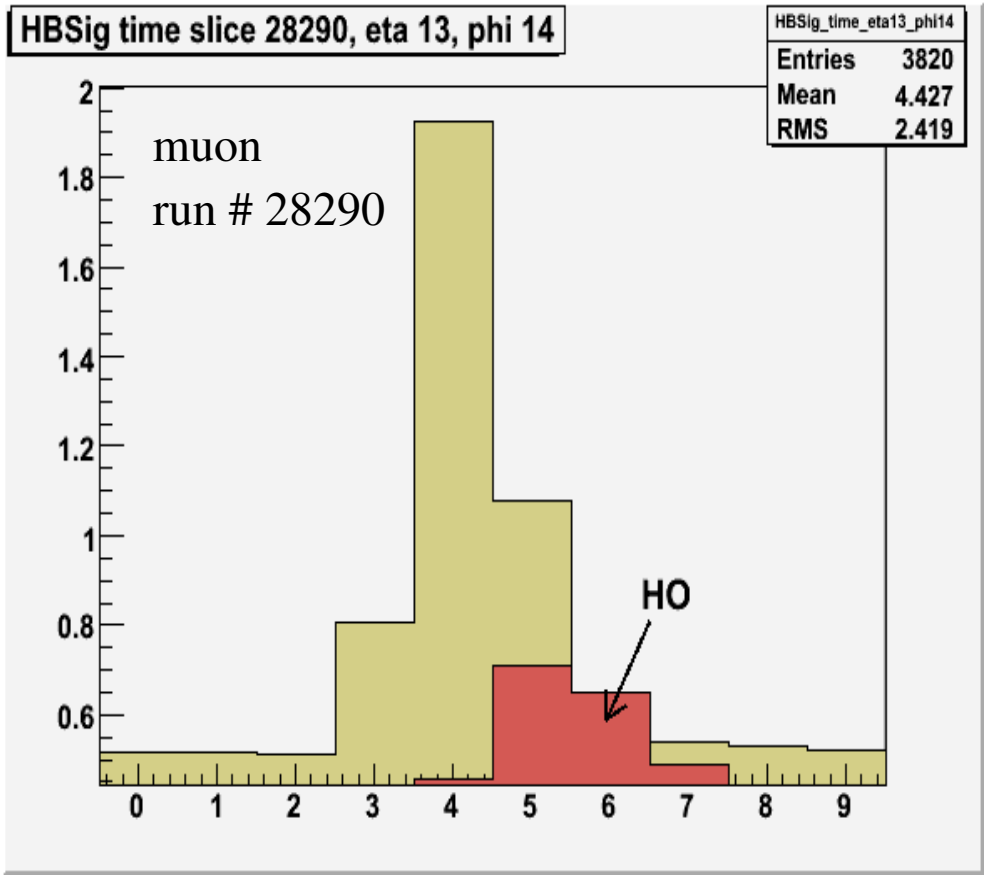
For further reference:
https://hypernews.cern.ch/HyperNews/CMS/get/CalTB-combined/118.html

- Changes were made to the relevant file to get the correct HO energy distribution.

Pion 150 GeV



Muon 150 GeV

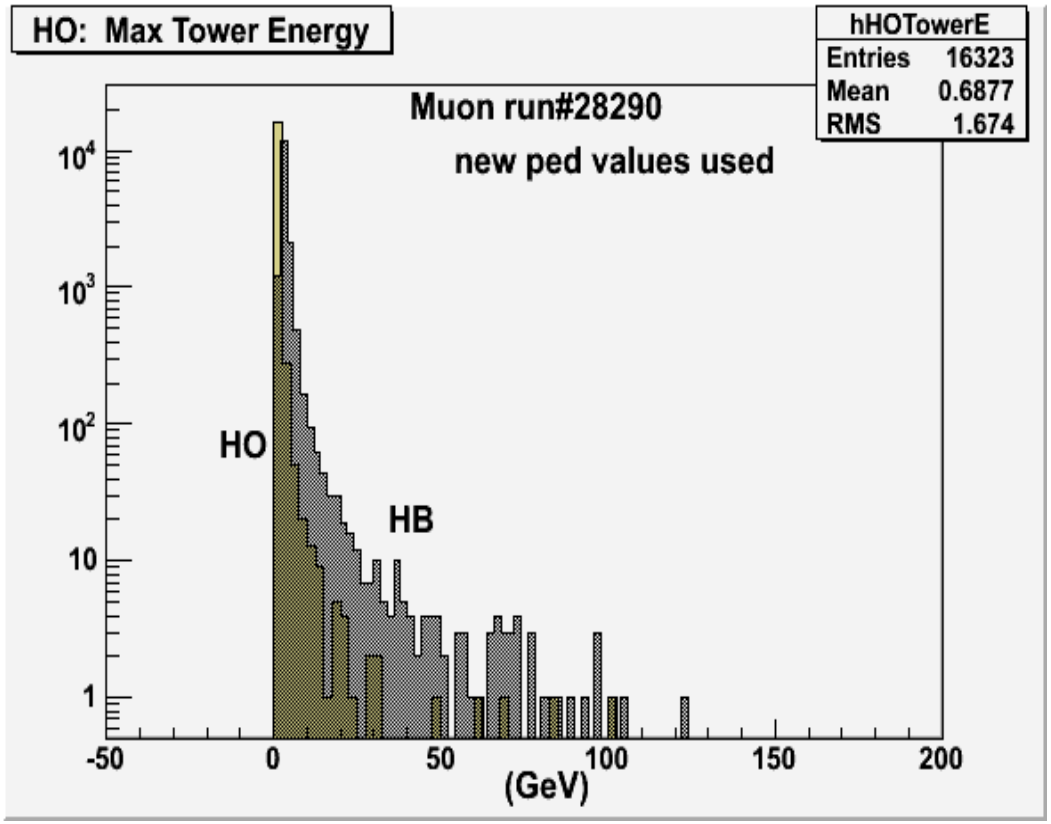


for HB: 4 - 7 TS to be added
for HO: 5 - 8 TS to be added

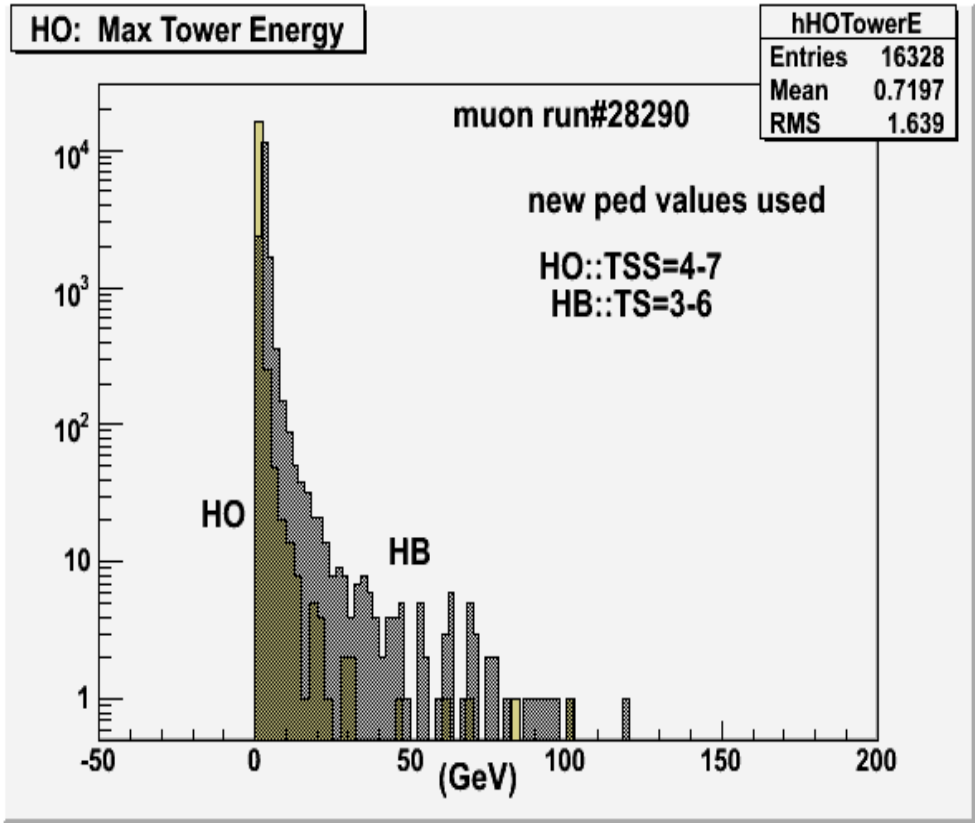
for HB: 3 - 6 TS to be added
for HO: 4 - 7 TS to be added

Energy in the tower with maximum energy for 150 GeV Muon

New pedestals files are used here



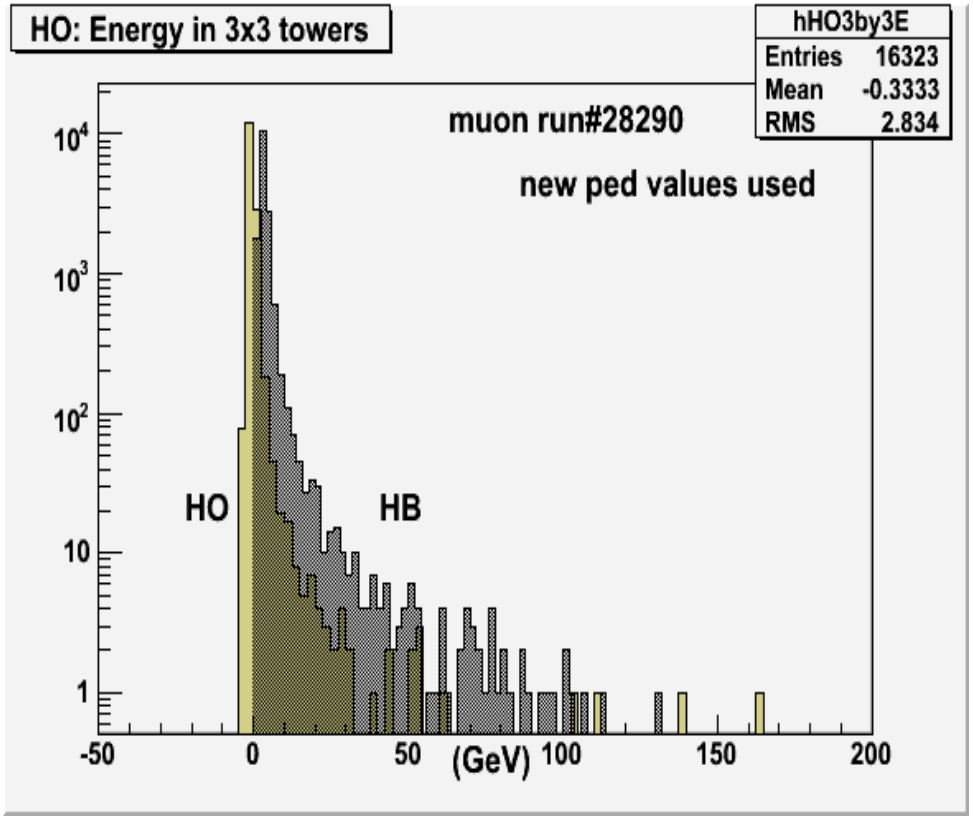
8 time slices added



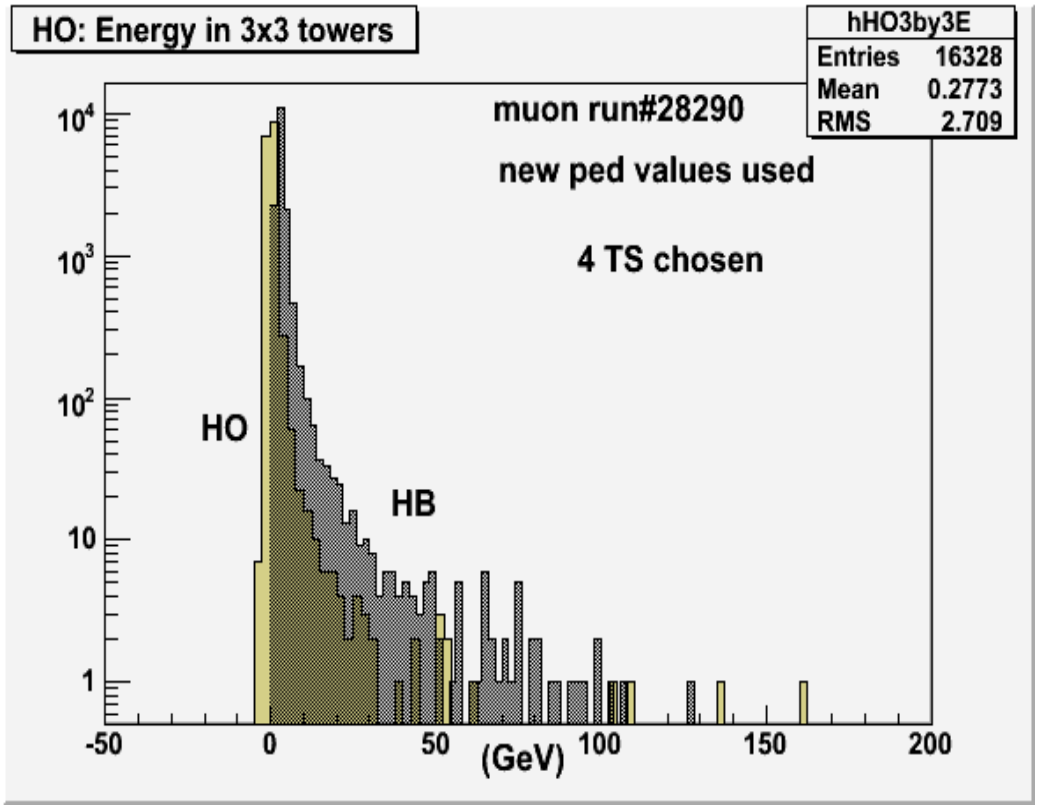
4 time slices added

Energy in the 3X3 tower around the maximum energy tower for 150 GeV Muon

New pedestals files are used here



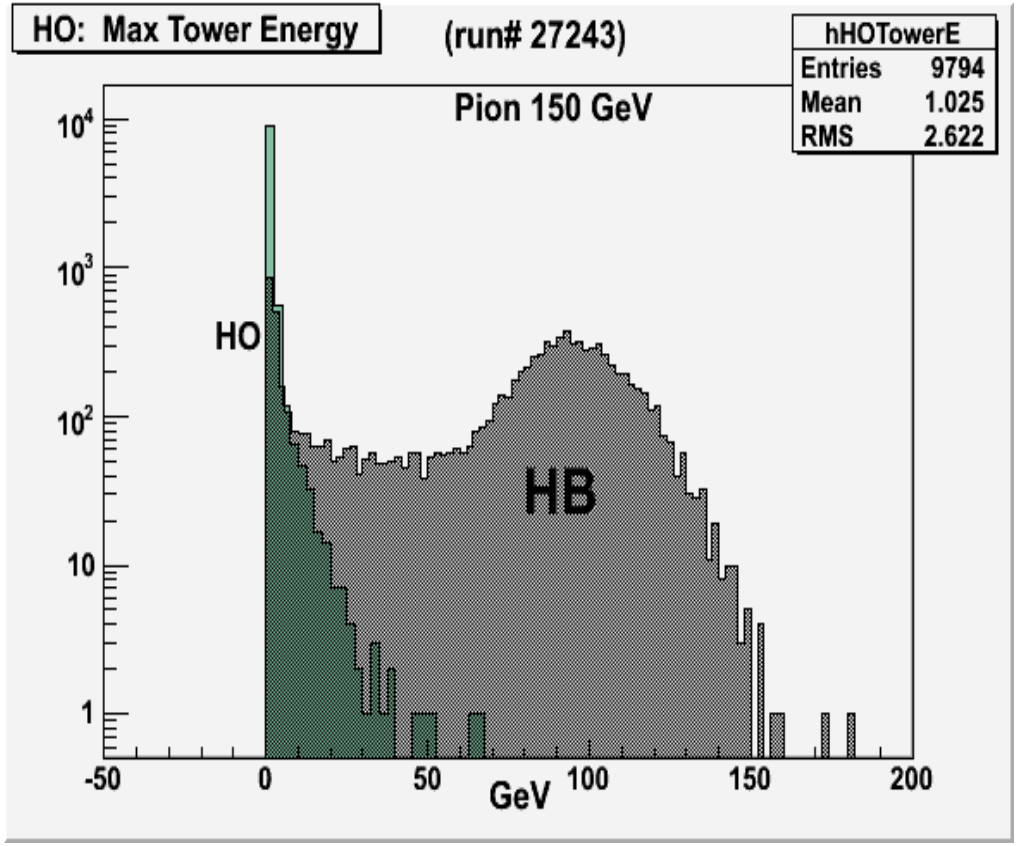
8 time slices added



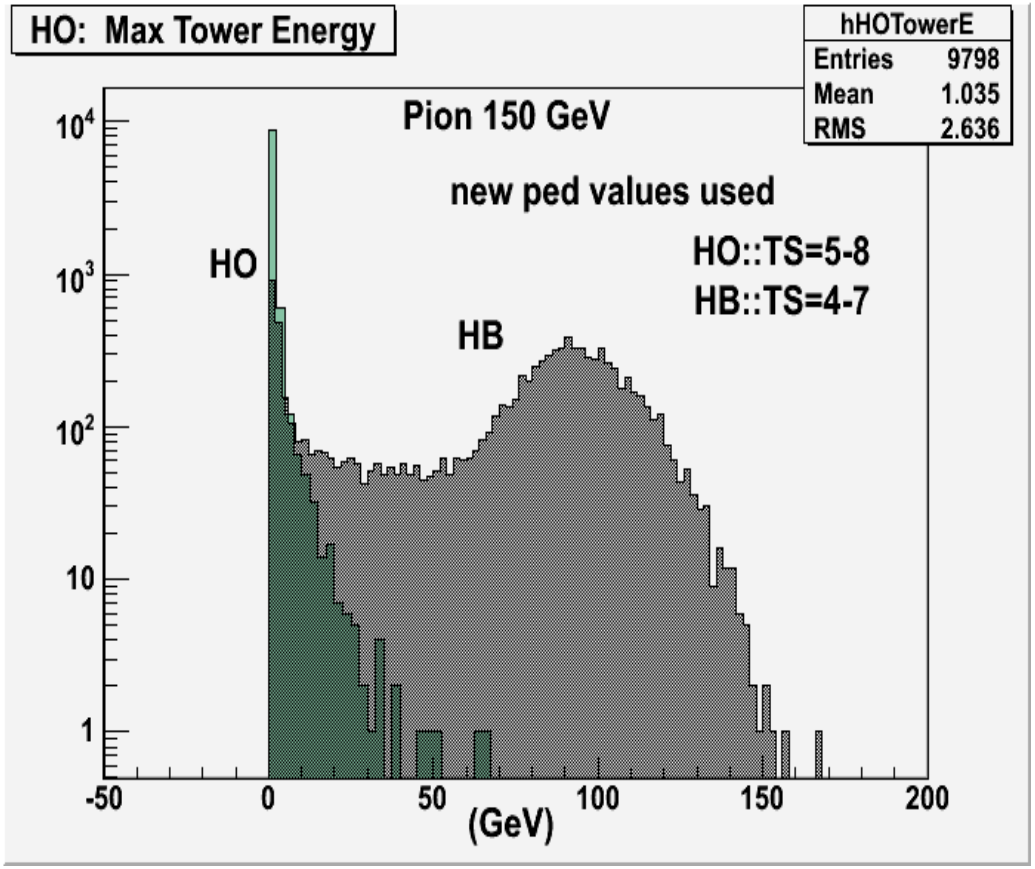
4 time slices added

Energy in the tower with maximum energy for 150 GeV Pion

New pedestals files are used here



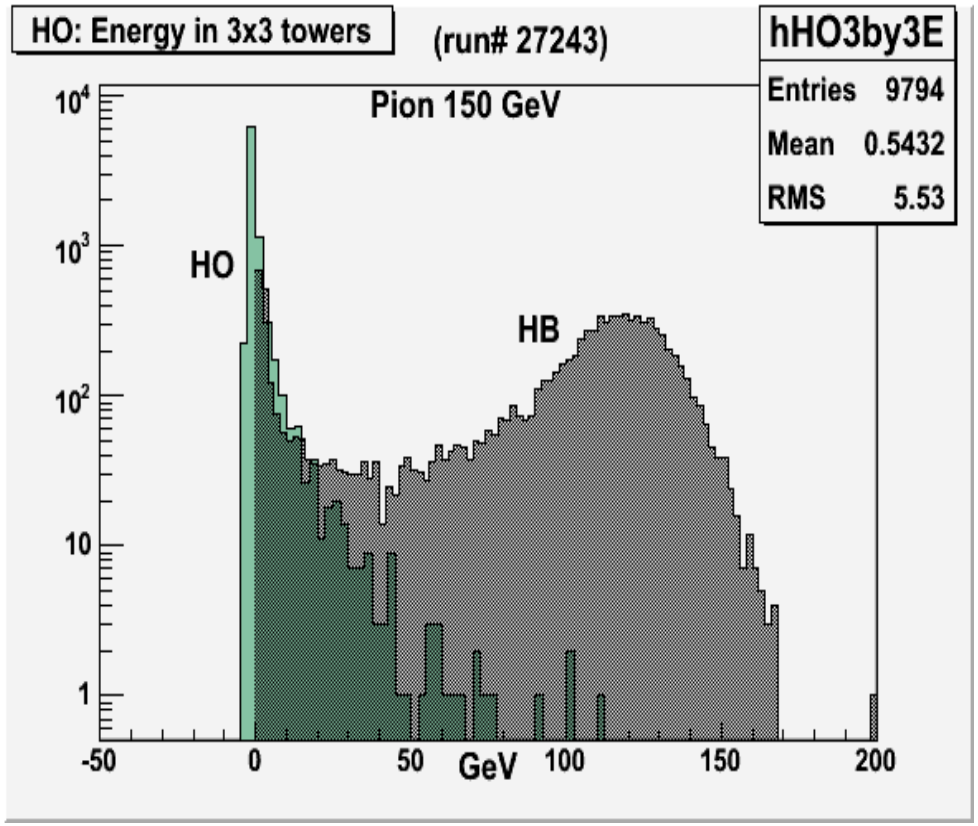
8 time slices added



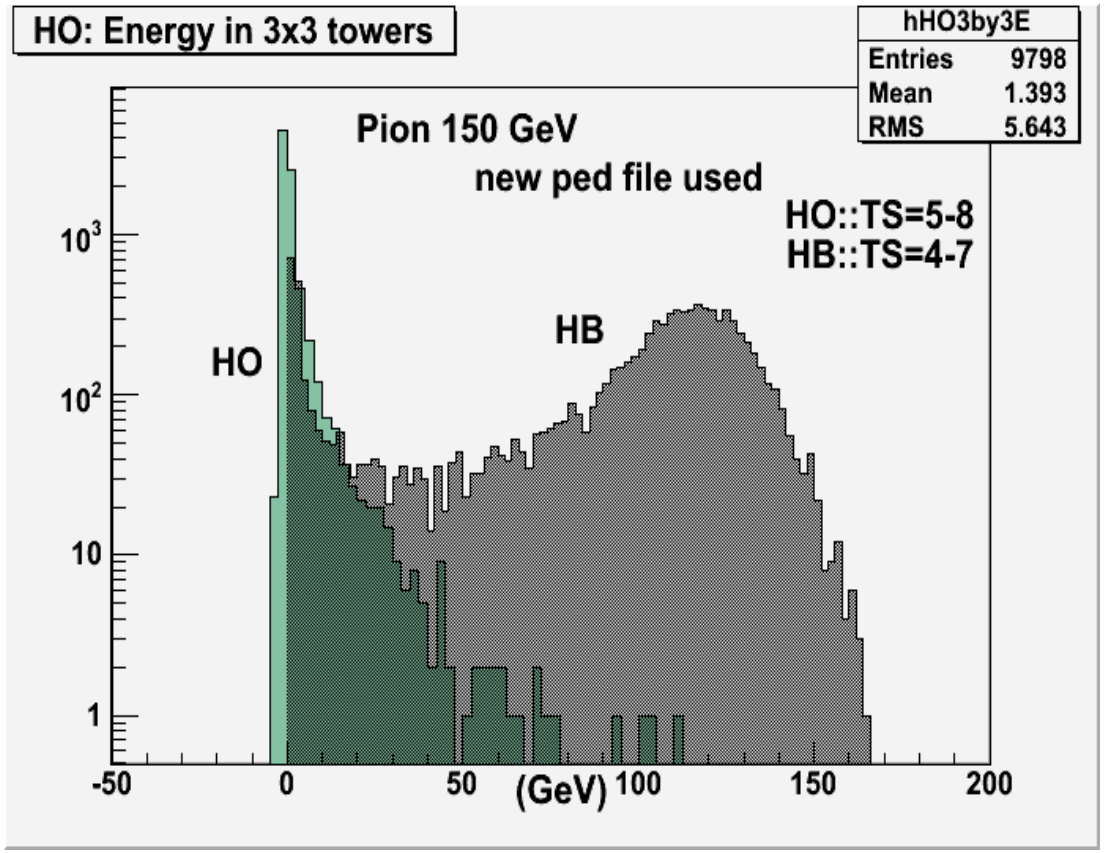
4 time slices added

Energy in the 3X3 tower around the maximum energy tower for 150 GeV Pion

New pedestals files are used here



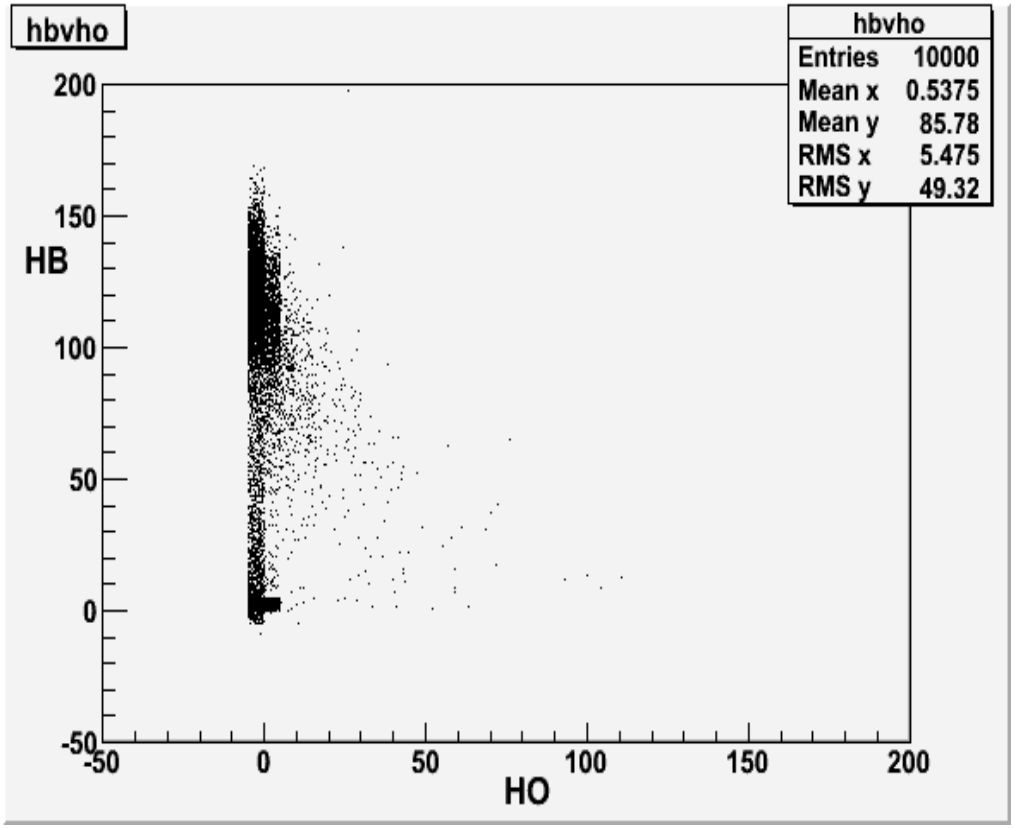
8 time slices added



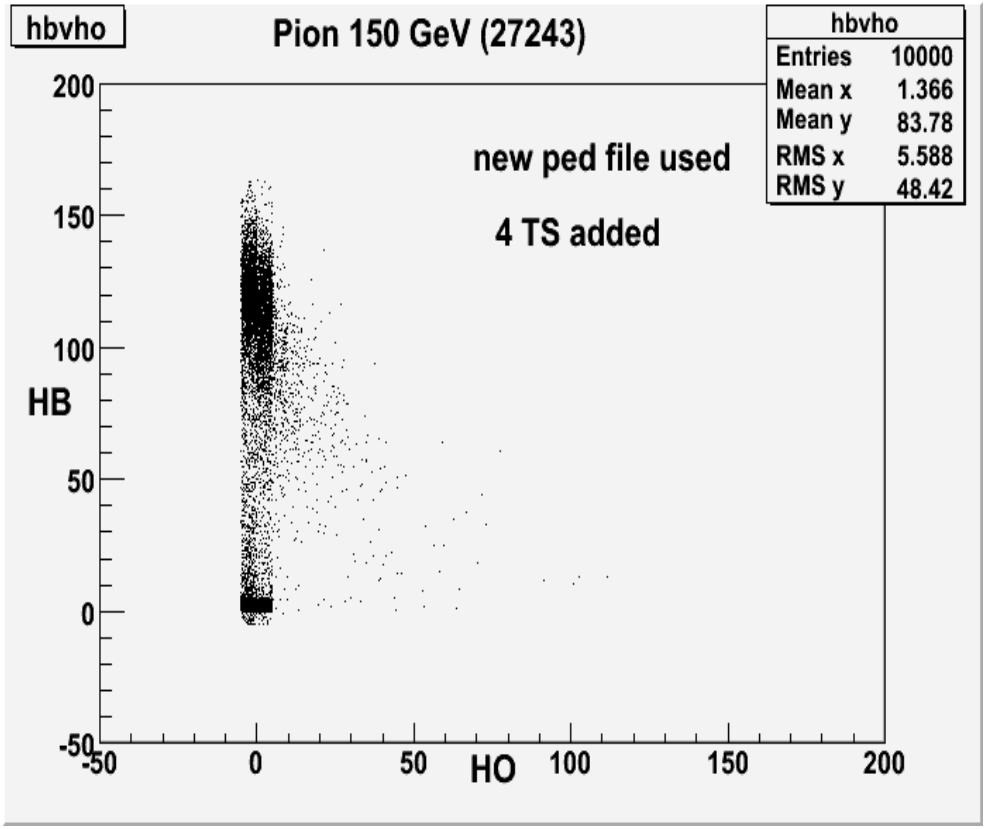
4 time slices added

Scatter plot of total energy in 3X3 of HB vs that of HO for 150 GeV Pion

New pedestals files are used here



8 time slices added



4 time slices added

Conclusion and Outlook:

- Right now we have not calculated the pedestal values for all the cap-ids.

We are using the mean pedestal value for all the cap-ids currently.
We are in the process of calculating the pedestal values for cap-id=0–3 .

- The difference in values of mean while adding over <u>all the time slices</u>

or adding over <u>four time slices</u> will be investigated thoroughly later on.

Acknowledgement:

Prof Sunanda Banerjee, Dr Gobinda Majumder, Dr Sudeshna Banerjee