MIPP Software Meeting 01/30/2009

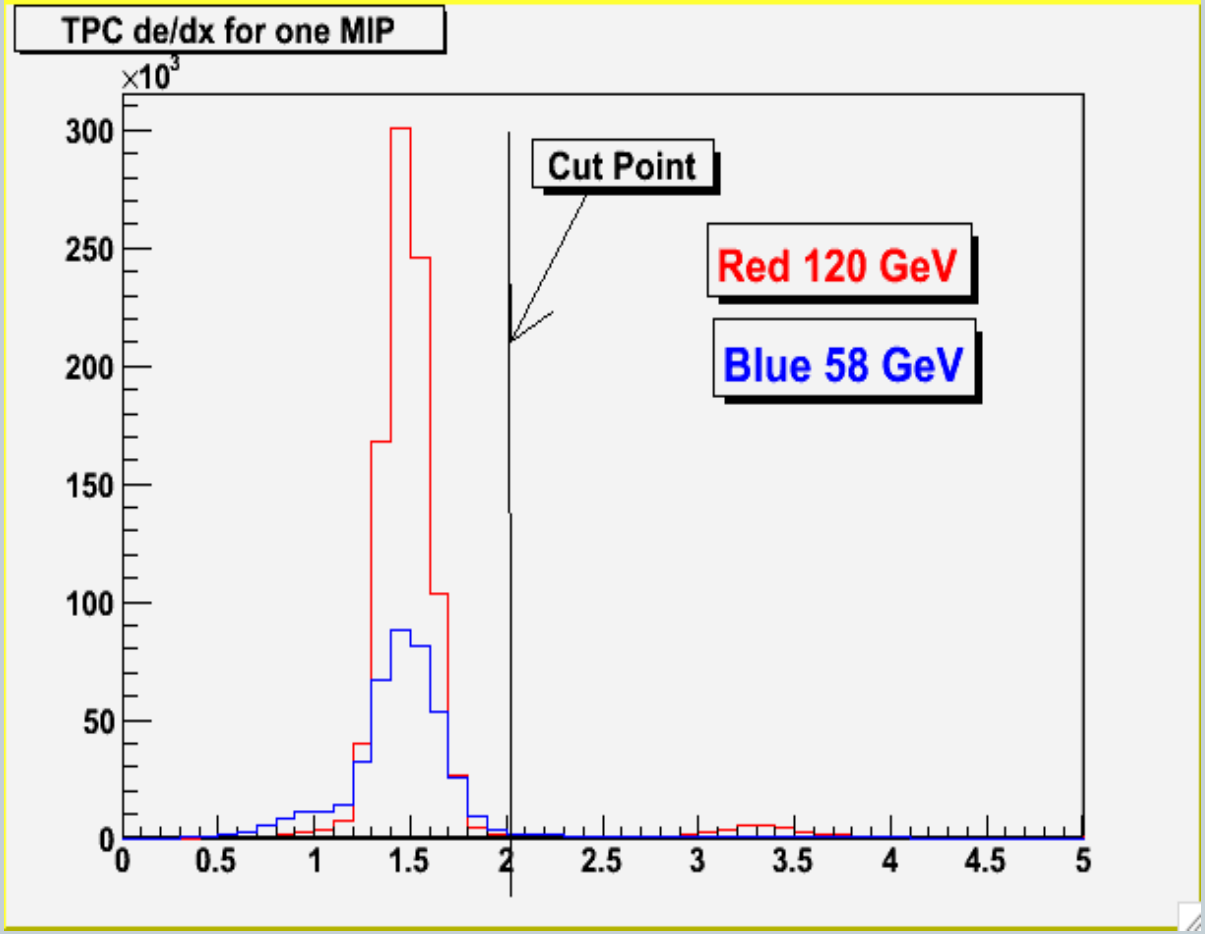
Scintillator Digitizer Progress Report

YUSUF OGUZHAN GUNAYDIN
UNIVERSITY OF IOWA
DEPARTMENT OF PHYSICS & ASTRONOMY

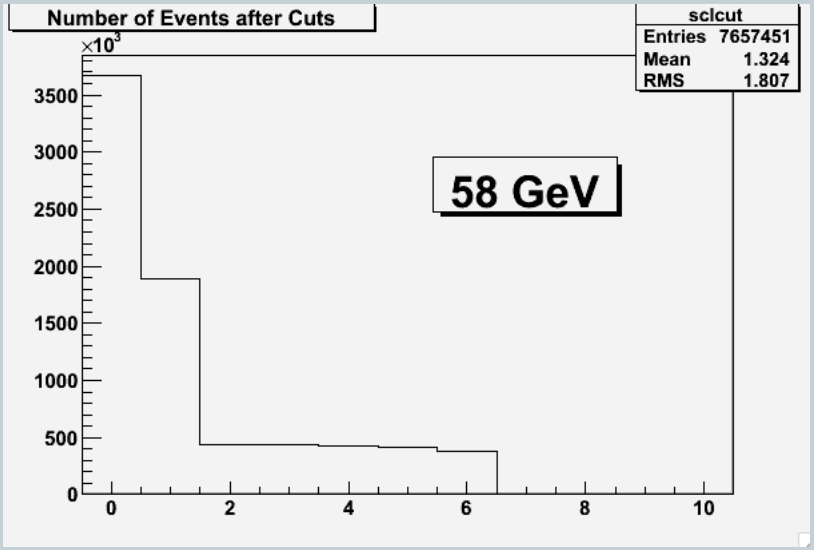
TPC dE/dX Spectrum

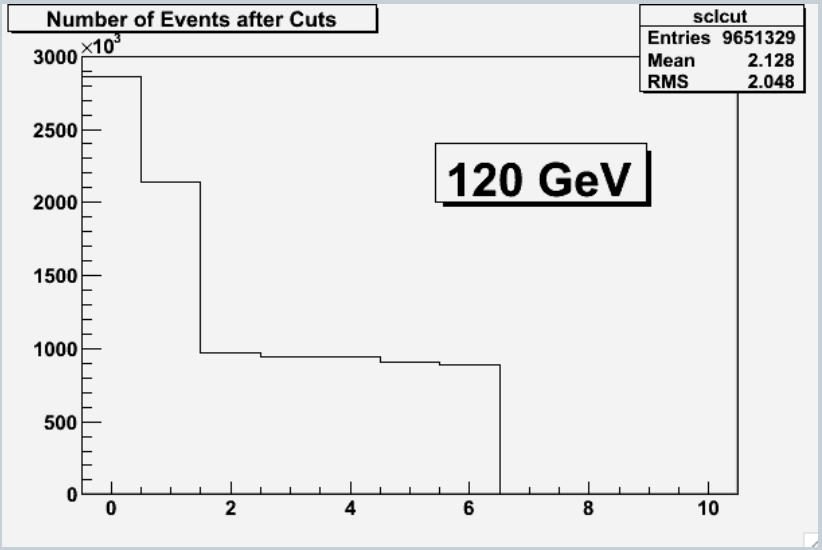
-I looked at TPC dE/dx spectrum to apply cut on hit reception for ADC.

-Here, 120 GeV and 58 GeV TPC dE/dx spectrum and cut is applied at 2.



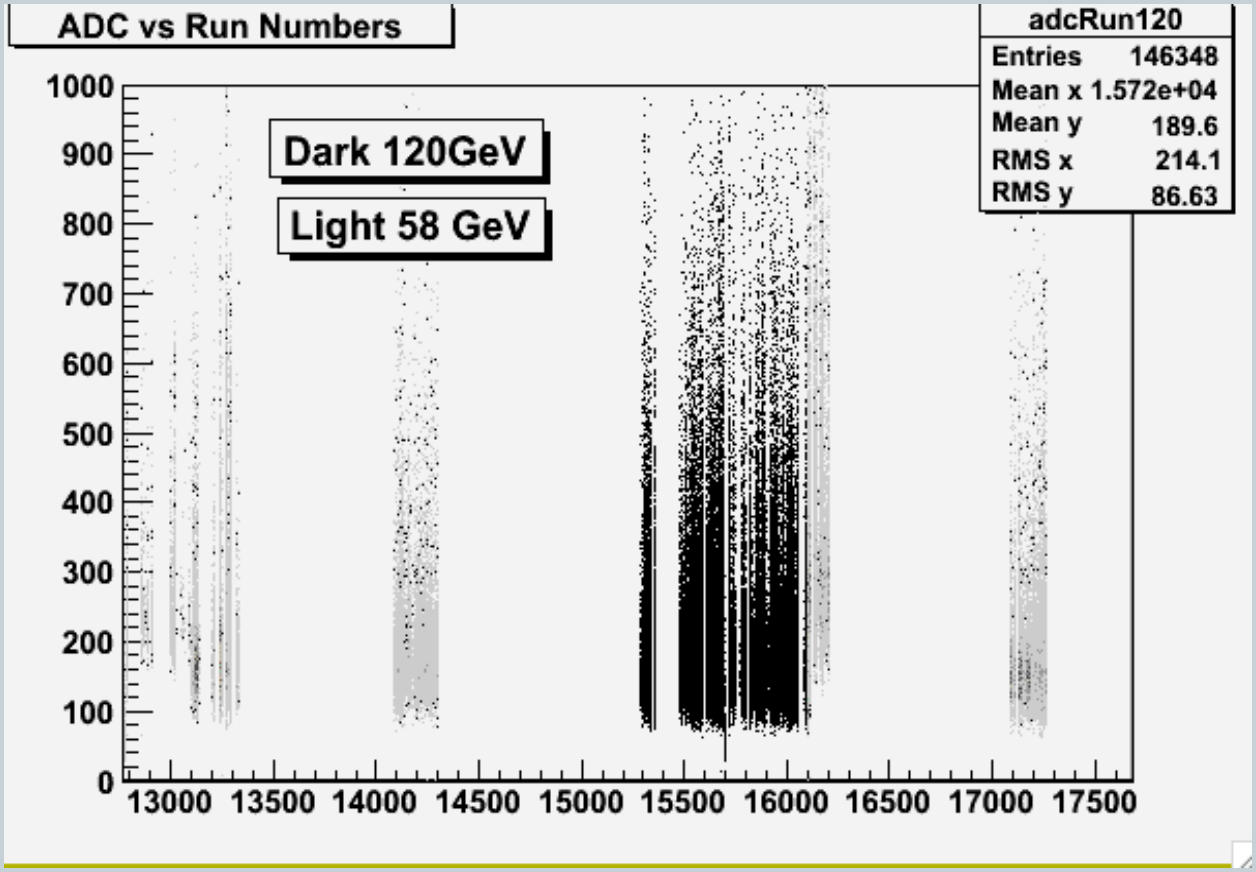
Cuts effects on hits





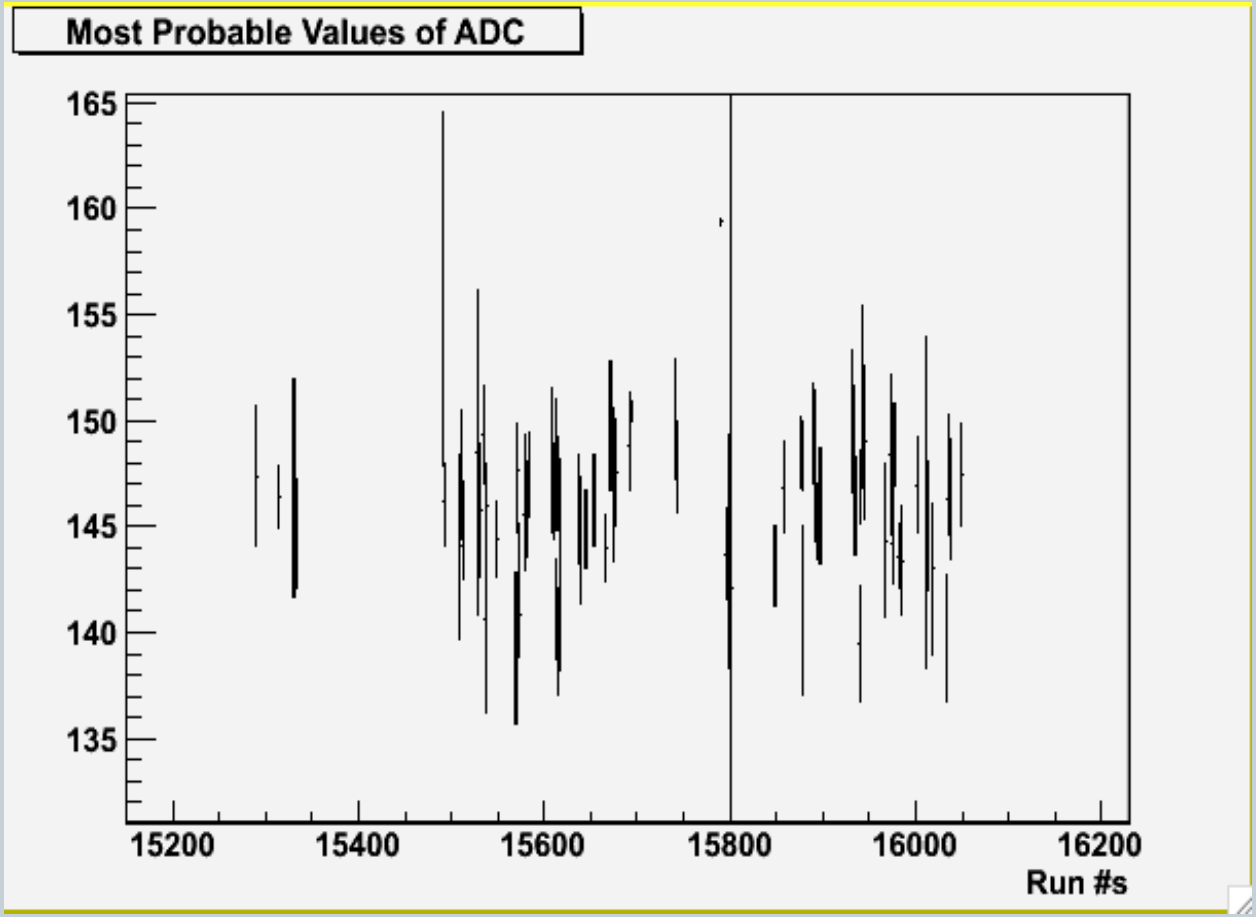
Last two cuts are TPC dE/dx and pile up events cuts respectively

ADC vs Run



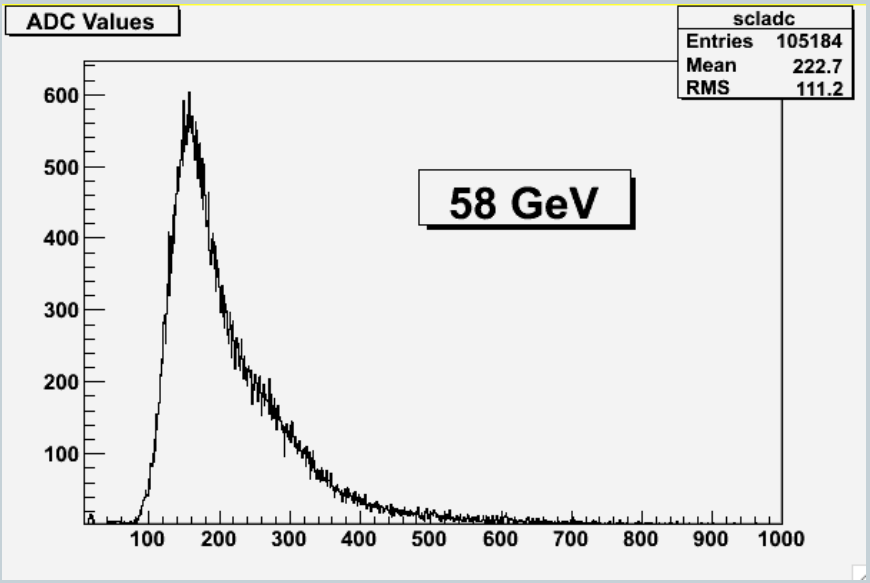
This is ADC vs Run distribution. I fitted each run with LandGau function to see their MPVs. Is there run to run variation?

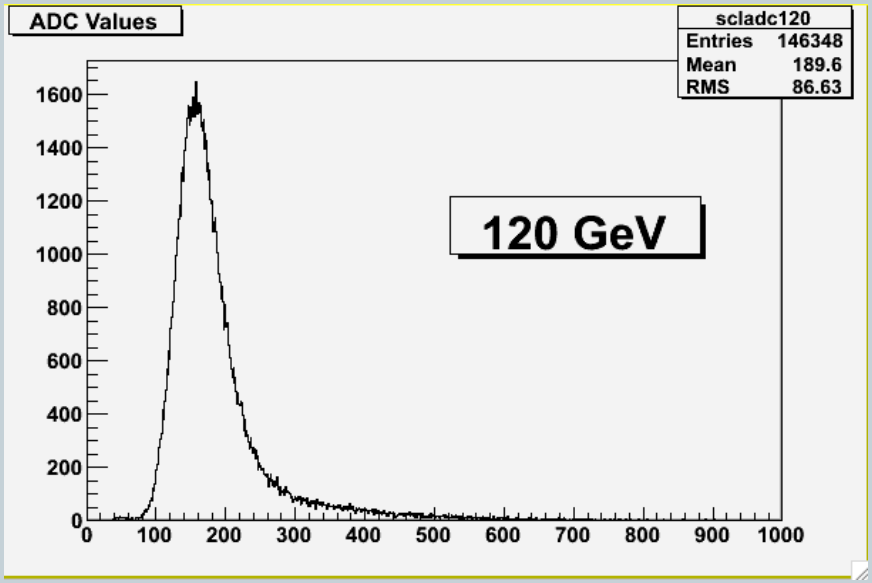
MPV vs Run



After looking Most Probable Value of ADC distribution, there is no worry about each run ADC spectrum difference. Since, the difference is about 3%.

ADC Spectrums for 58 and 120 GeV.





These are ADC spectrums based on one MIP method.
58 GeV spectrum does not look reasonable. I'm going to look at this.
My future digitizer will be based on this type of histogram.