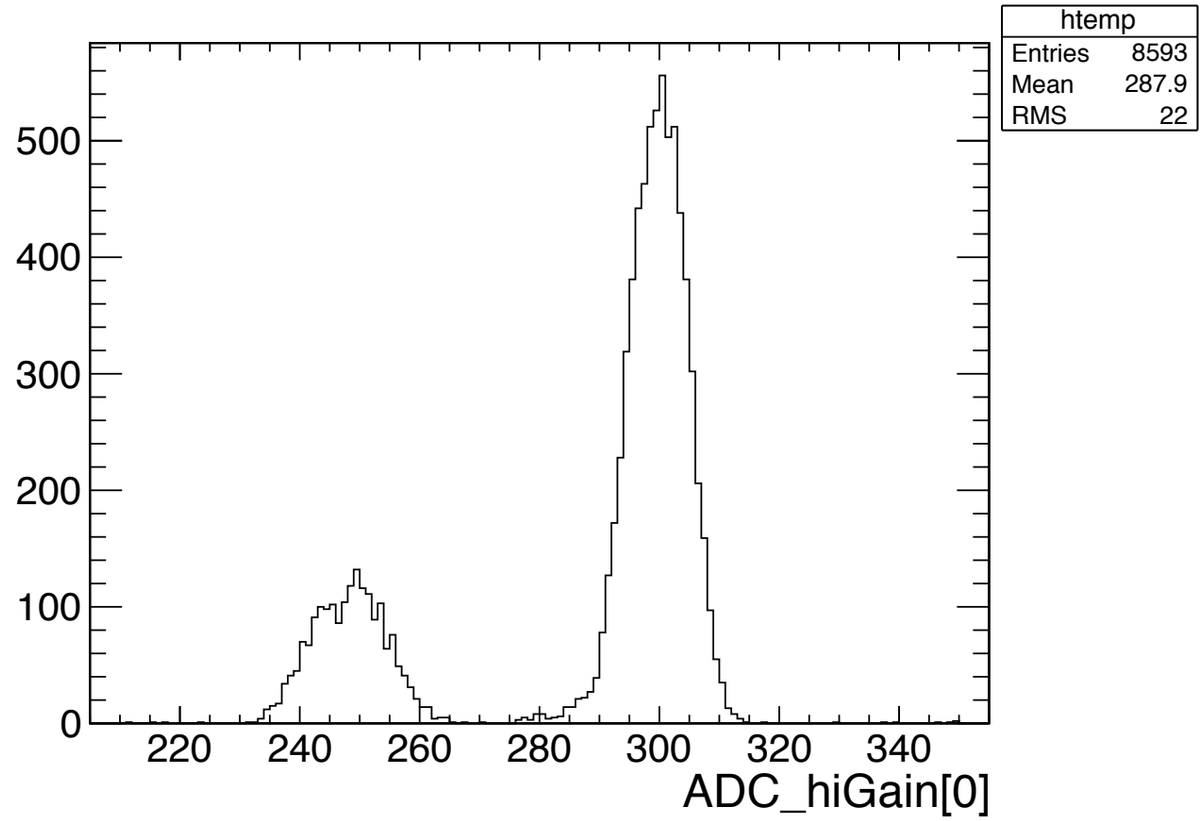
Negative signals?

Sandhya Jain, Gobinda Majumder



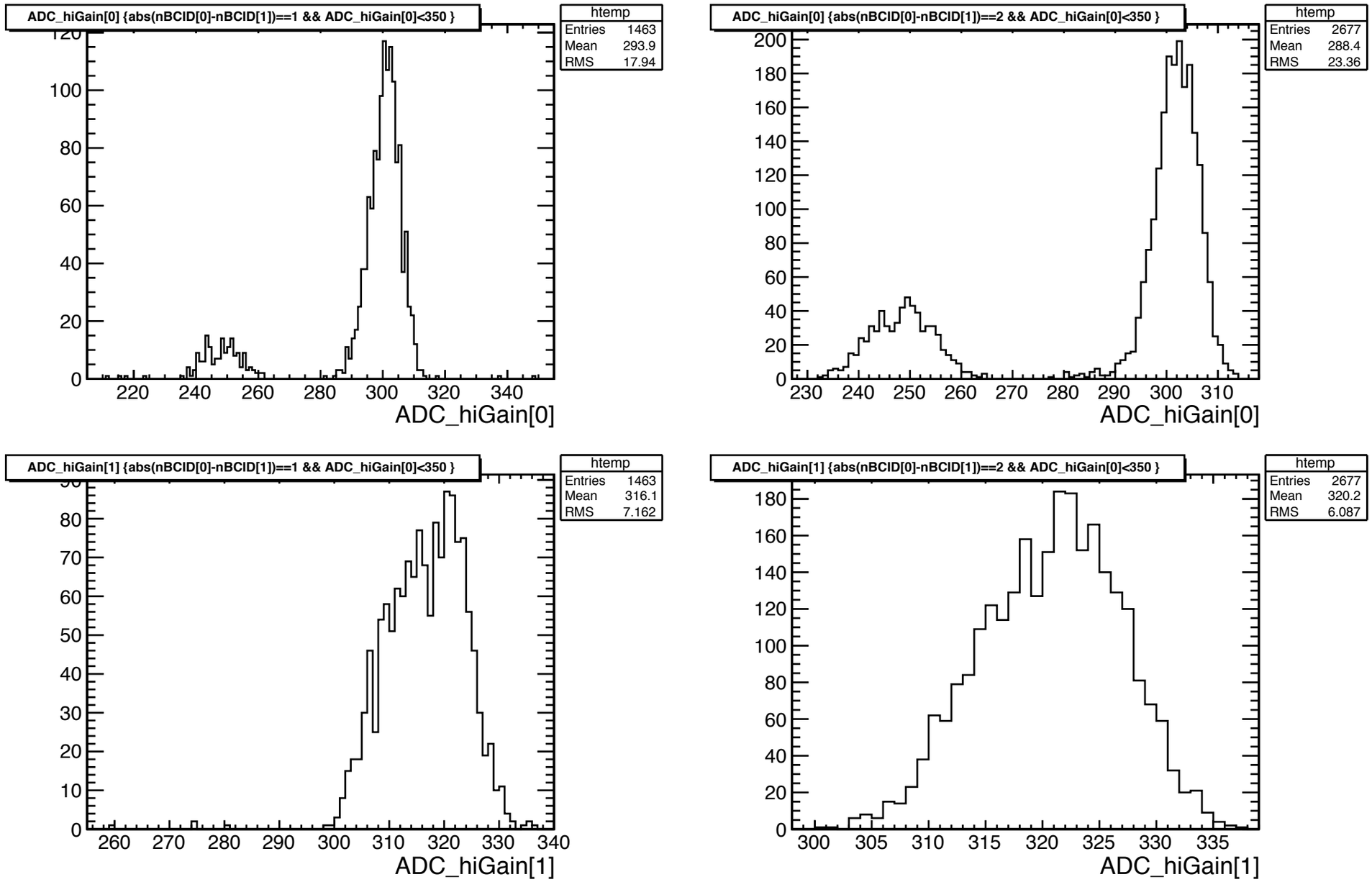
ADC counts are stored per chip per column(nSCA) per channel in the root files as ADC_hiGain[nchip][nSCA][nchannels] Here for example, for a given chip and channel

ADC_hiGain[x] = ADC_hiGain[0][x][23]

Then, added for various channels (23,40, 43, 49) having similar effect

Looking at muon run at 150 GeV (0361)
Many channels have these negative signals separated from pedestal peak - sometimes not so well separated as well.
We need to get rid of them in first place to get rid of any bias these can produce on the pedestal calculation.

Observation



If we notice here : If we require the bunch crossing to be within +-1 or +-2, the negative signals remain in first column but disappear in next column.

Do we understand this feature?

Please note, this is something we reject in next column if we put it as condition for re-triggers and remove the secondary peaks in first column due to retrigeering.