SC 1000 TestBeam Nov 2025

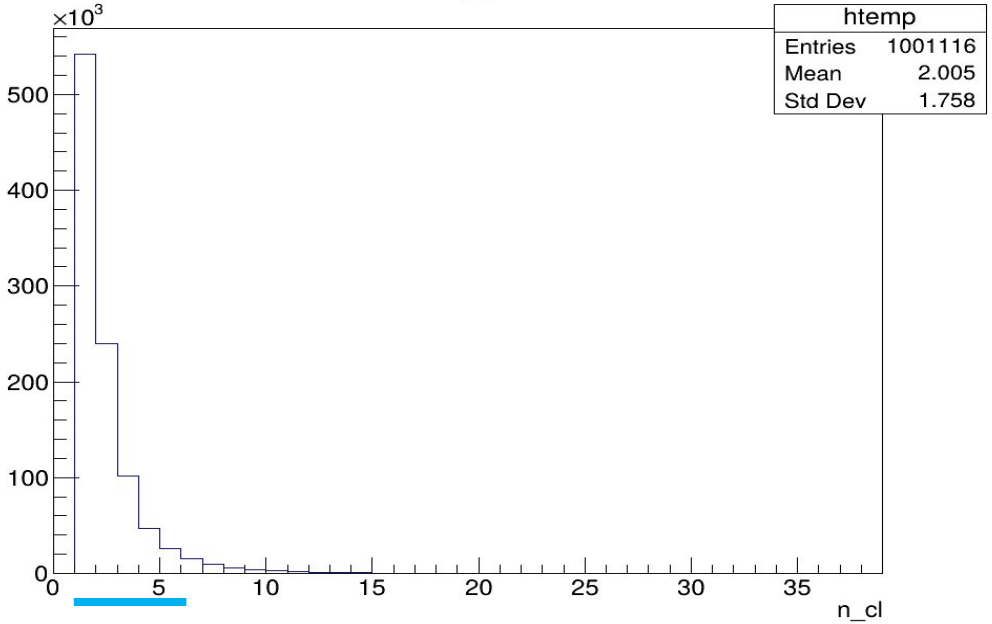
Run 84

data from MicroMegas (file /data-verso/run_0121.root)

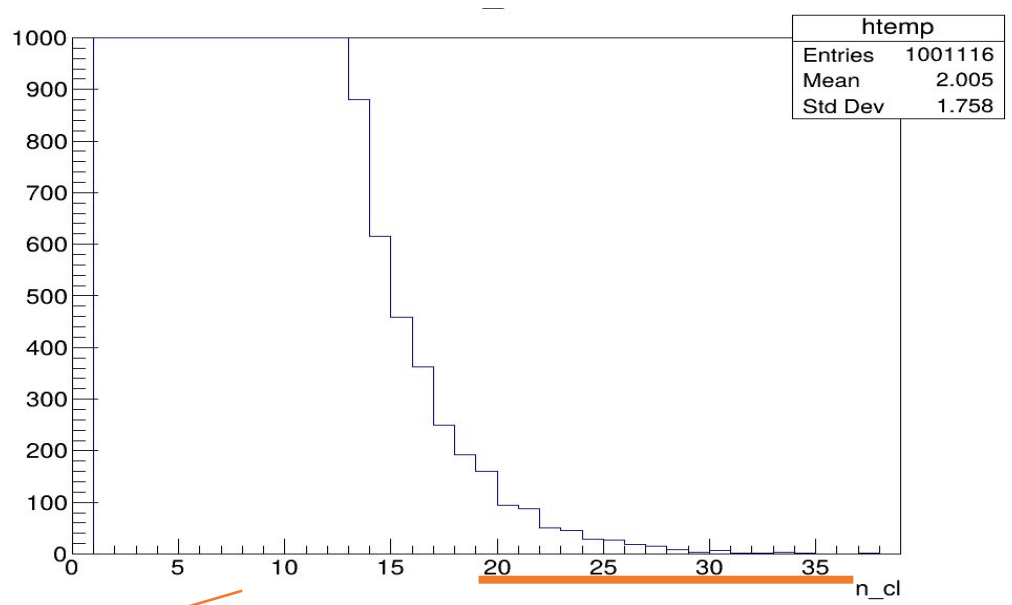
VMM tree

MM channels clusters

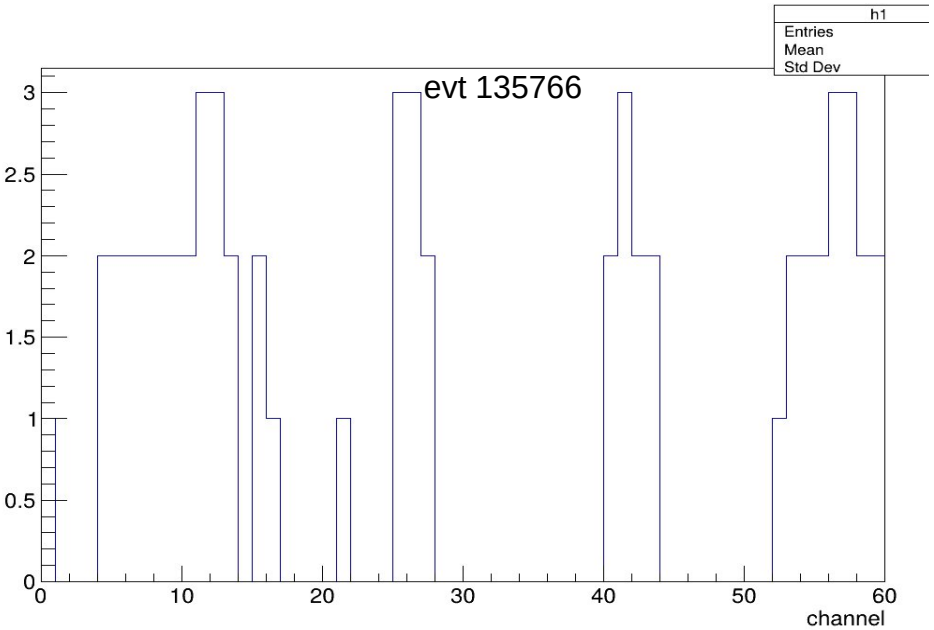
Number of clusters in one event

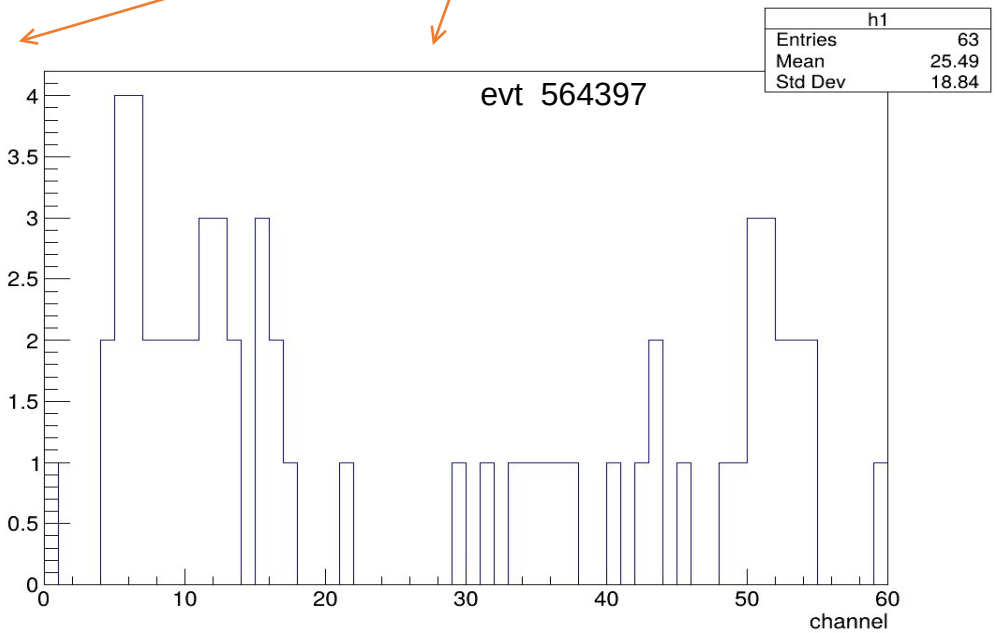


Most events have 1-5 clusters



What are these events?



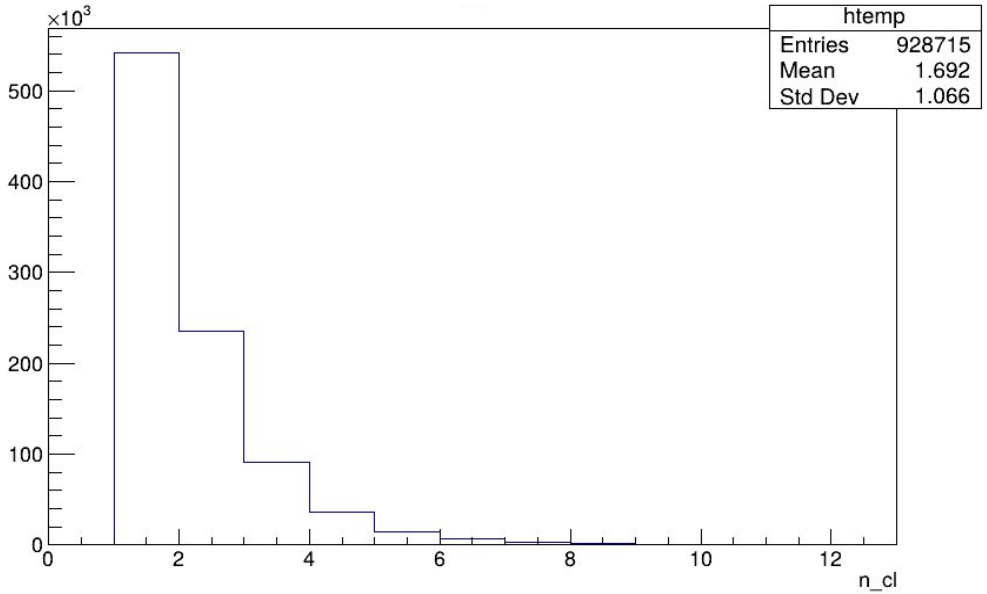


Add one more condition (5) for event selection

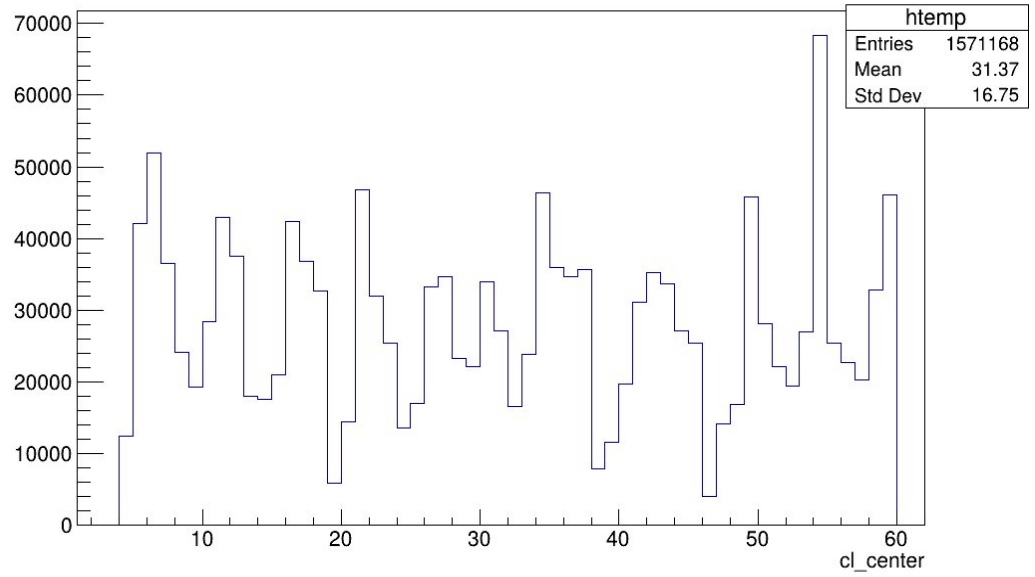
Event selection:
1) signal in channel zero and at least one more channel (13% jf all entries left after this step 1)
2) only one hit in channel zero
3) total number of hit channels in one event <64 (82% of event left after selection steps 2 & 3)
4) signal in channels 4-59, at least in one of them (90% events left after previous step)

5) one hit in each channel per event (7% of events rejected, 92% events left after previous step)

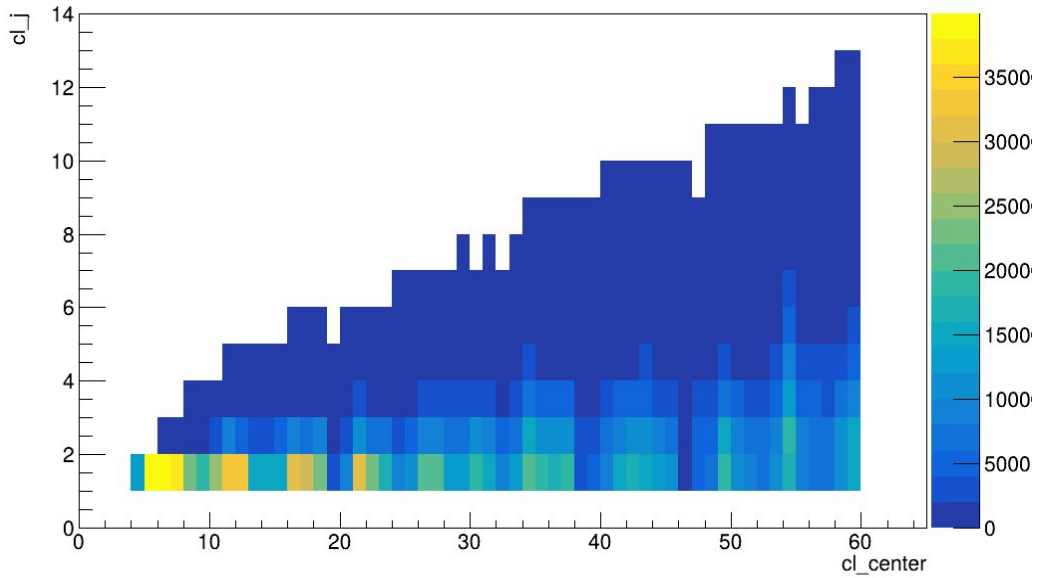
Number of clusters in one event after excluding events with repeated channels



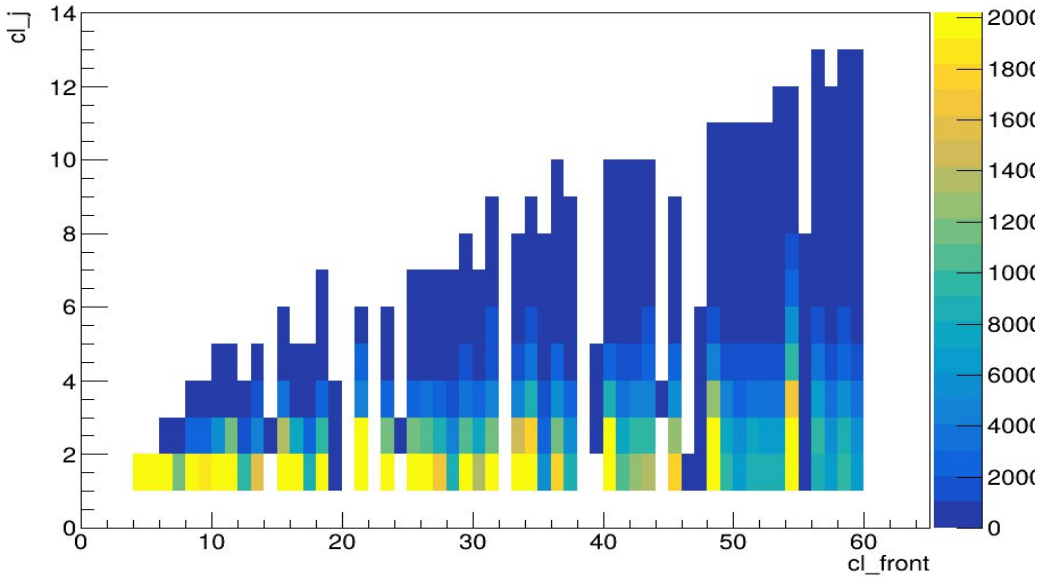
Cluster centers distribution



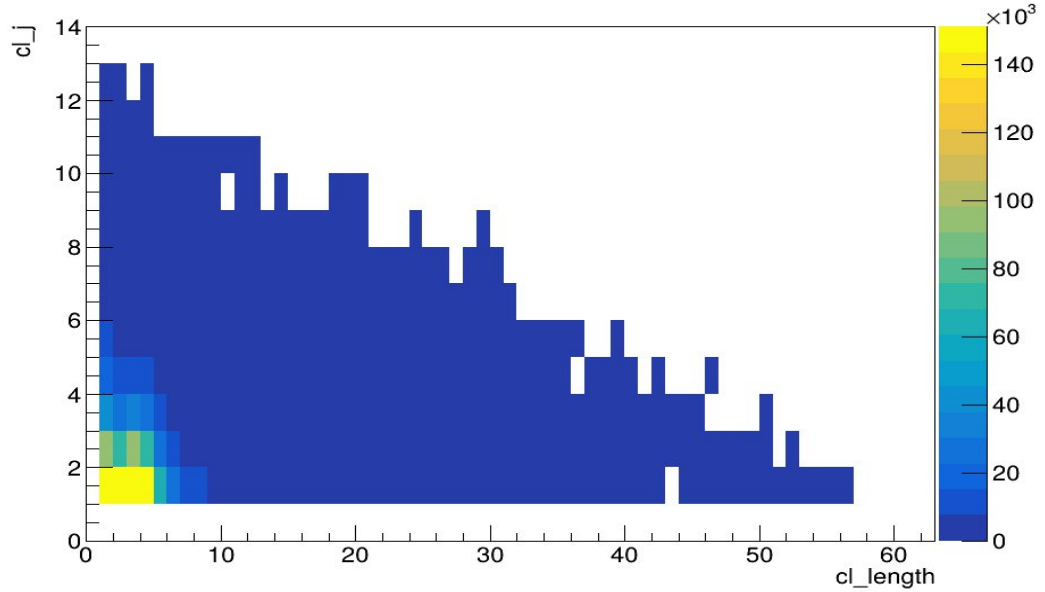
Cluster index number in event vs cluster center position



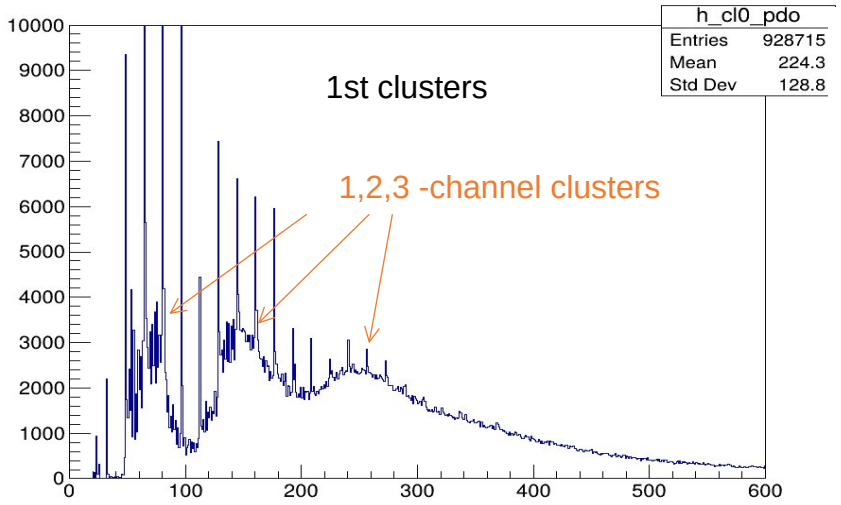
Cluster index number in event vs cluster front position

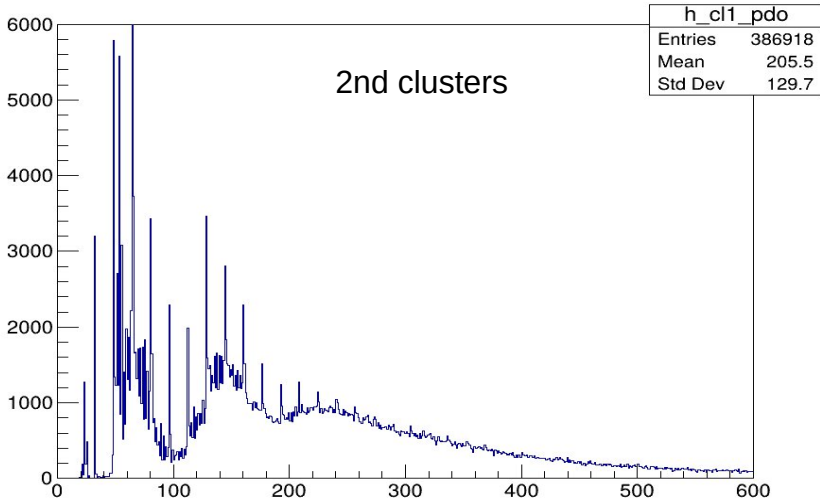


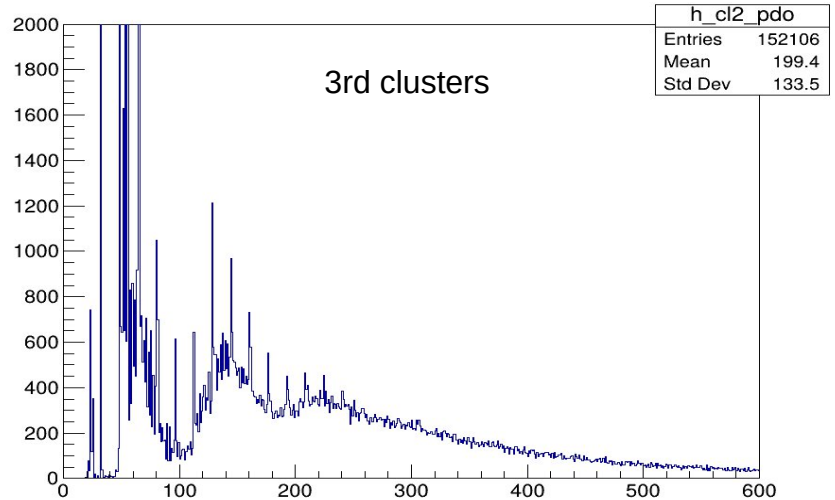
Cluster index number in event vs cluster length



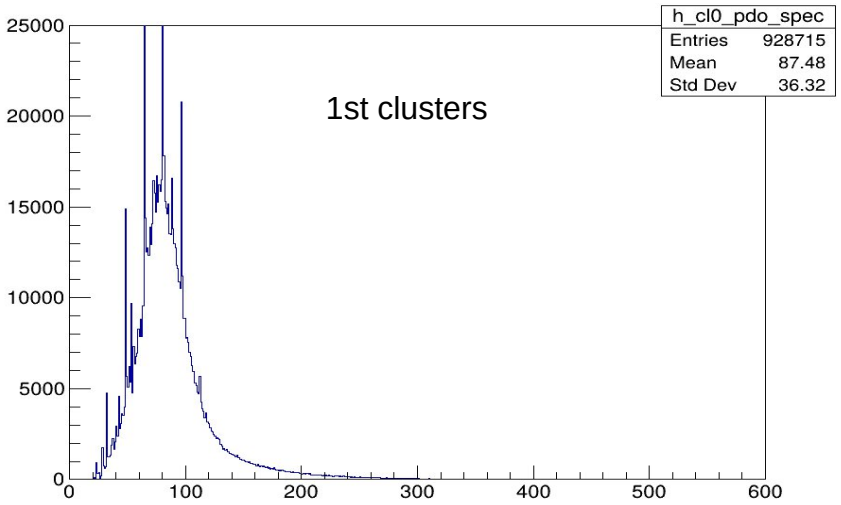
PDO for the 1st, 2nd, 3rd clusters in event

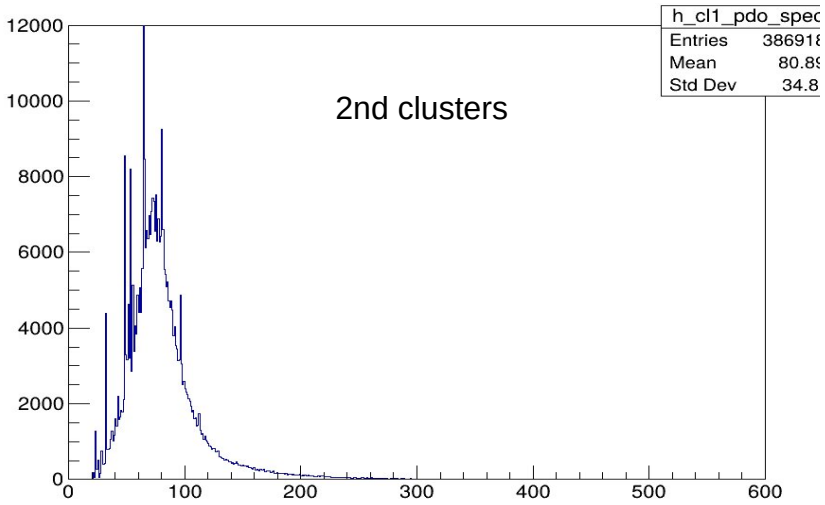


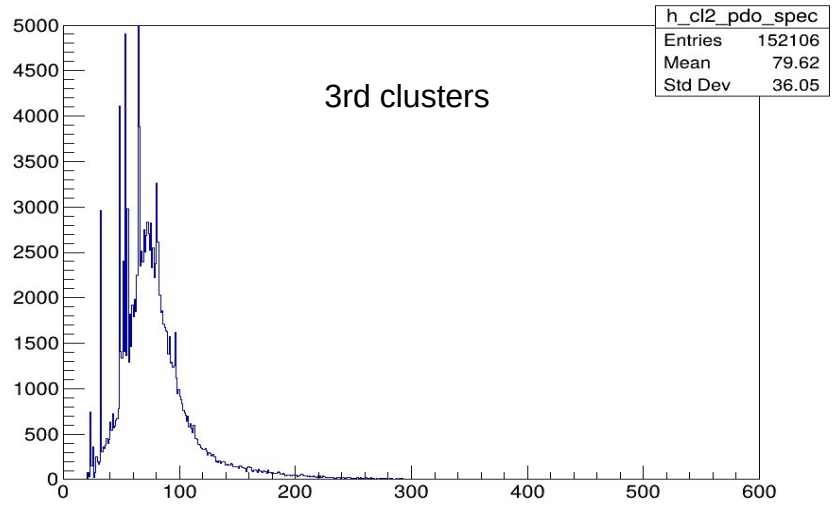




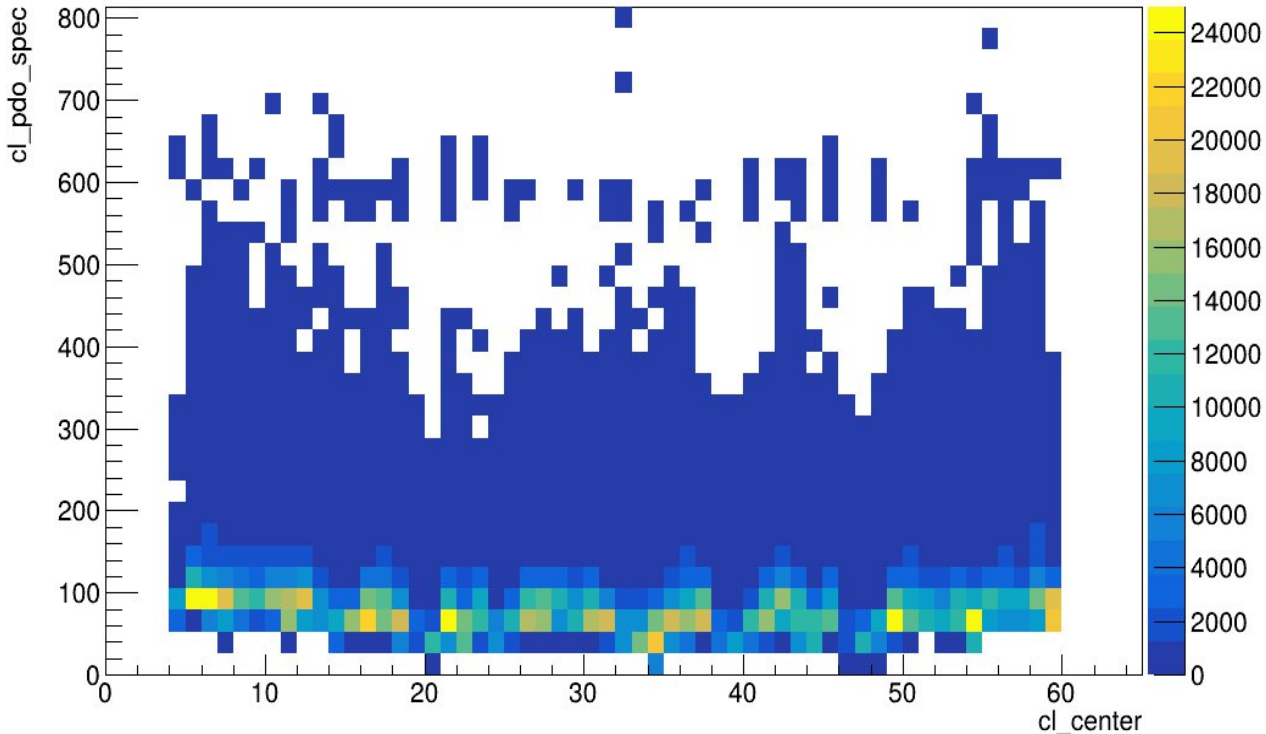
PDO divided by the length of the cluster for the 1st, 2nd, 3rd clusters in event





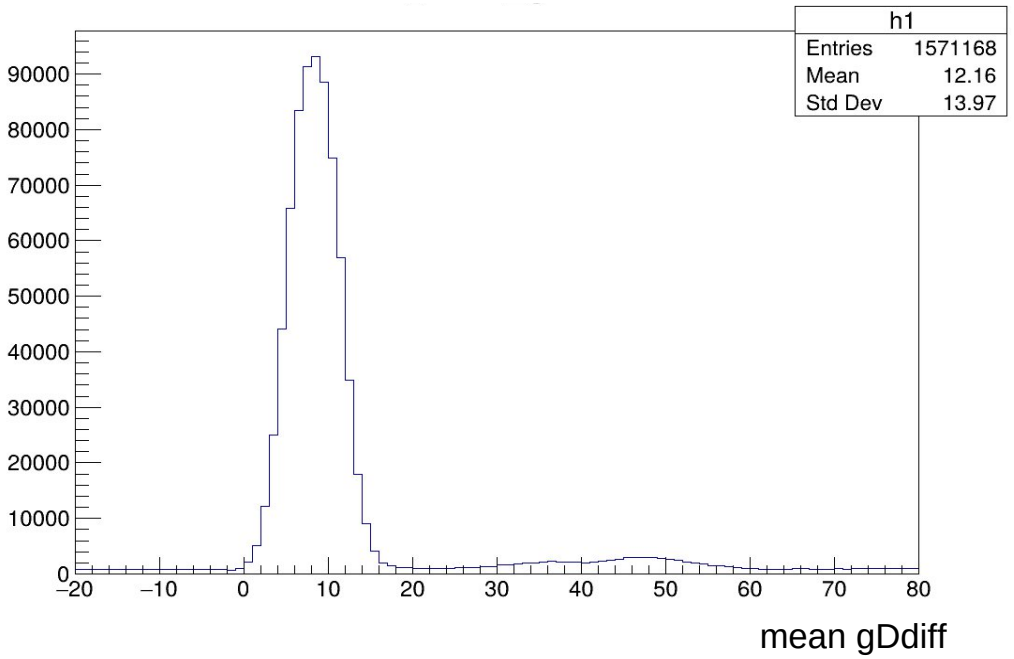


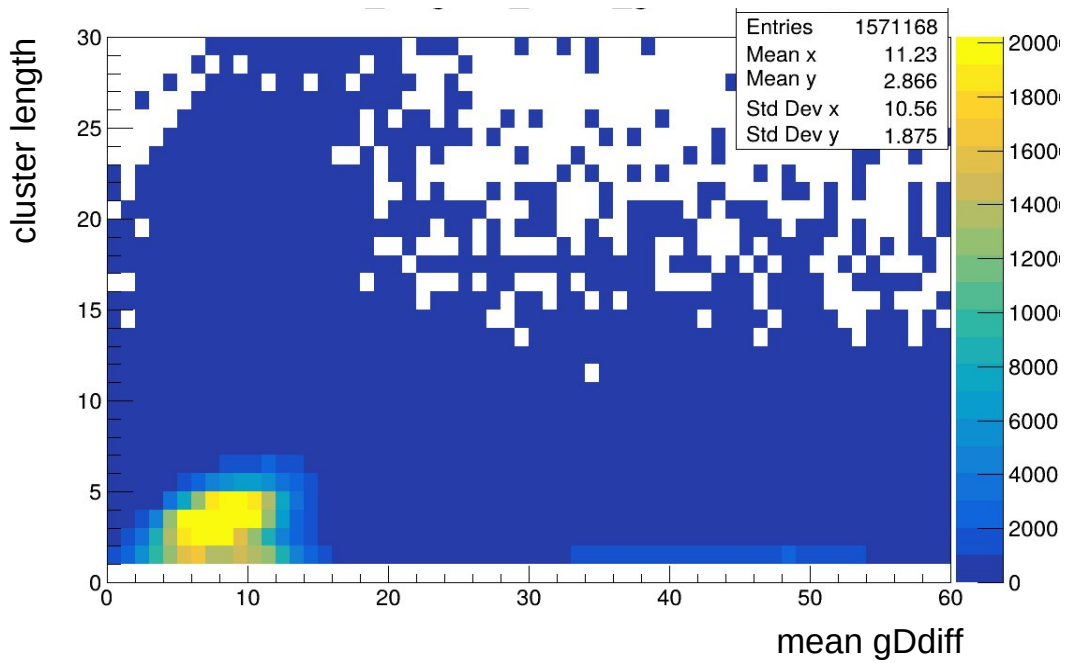
Cluster PDO divided by its length vs cluster center position (all clusters)



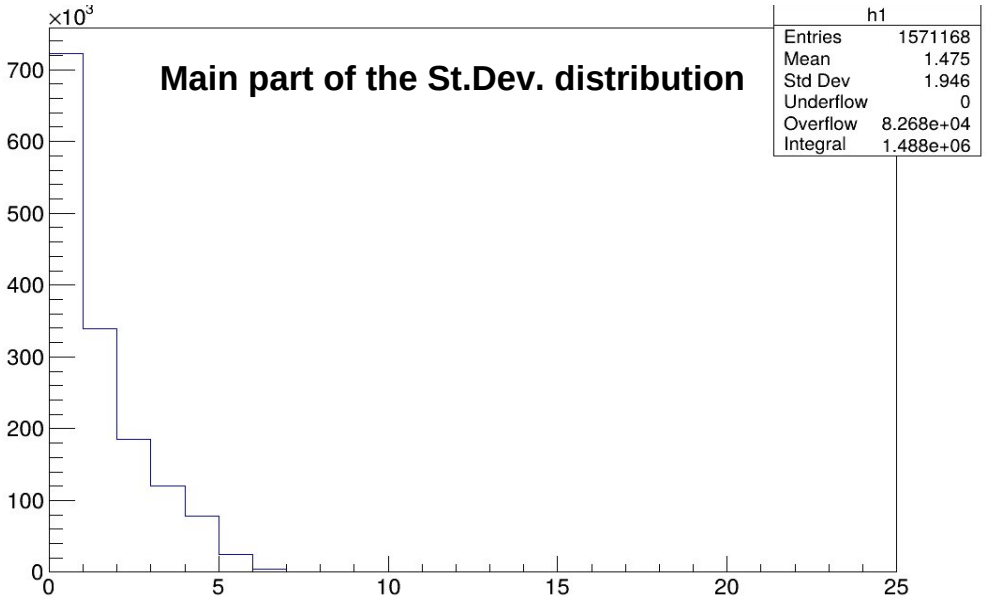
Mean of the gDdiff values in channels within a cluster

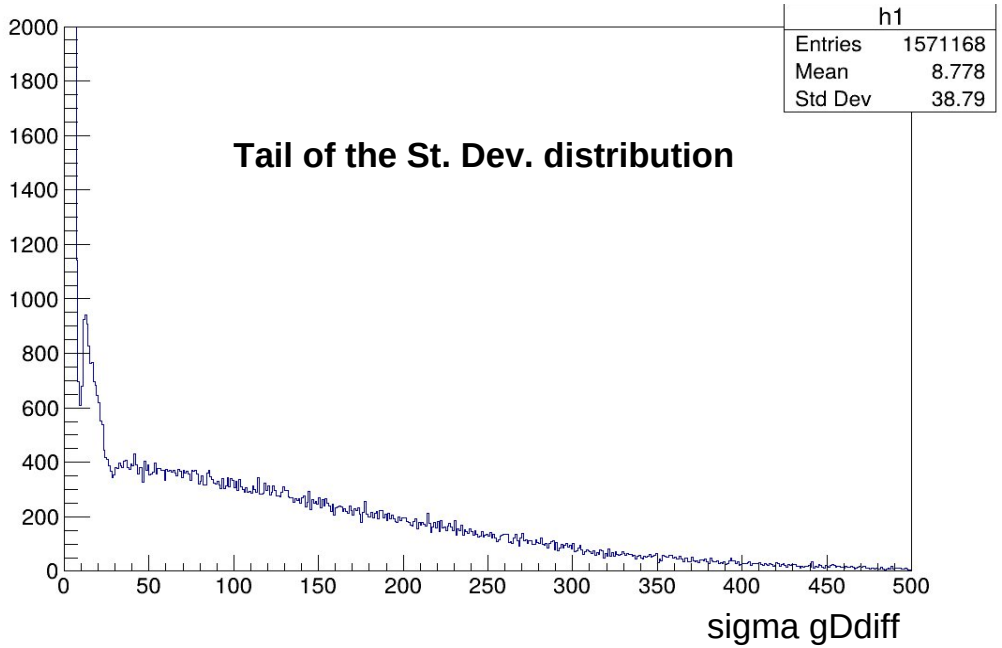
where **gDdiff** is the difference between grayDecoded of the MM channel and Sci channel 0

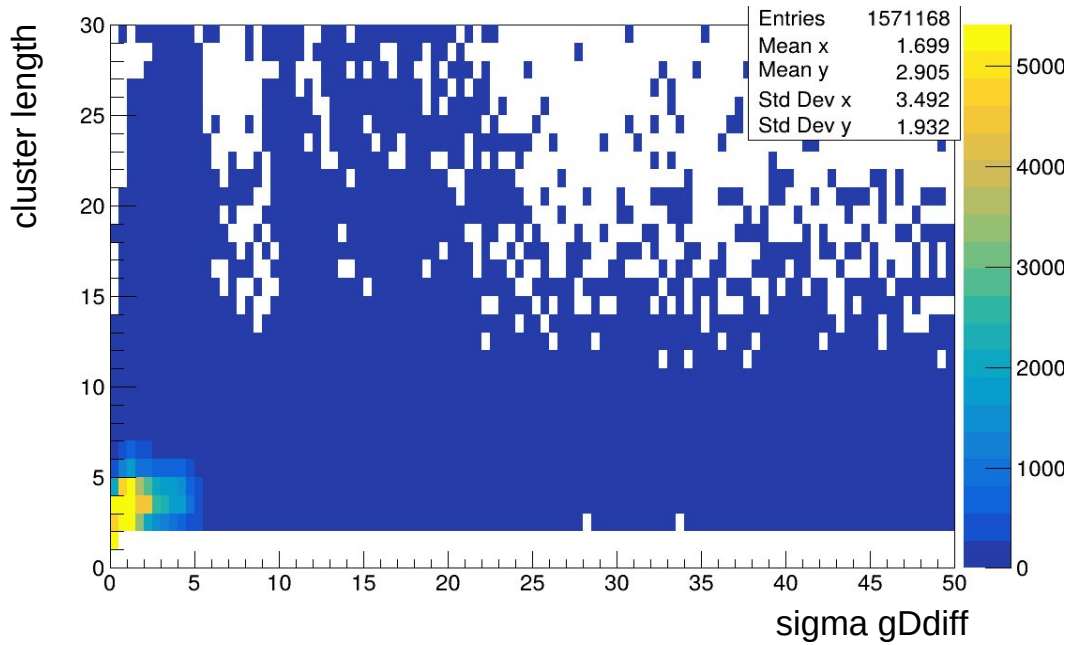




Standard deviation of the gDdiff values in channels within a cluster







Standard deviation of the gDdiff values in channels within a cluster versus mean

