TPC Data Analysis Group Meeting

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Inter Calibration and Gain

The inter-calibration factor is because of the gain variations between the different electronics channels. r is the inter-calibration factor, $Q^{av}_{hit,pad}$ is the average charge per hit per pad divided and $Q^{av}_{hit,all}$ the average charge per hit over all pads.

$$r = \frac{Q^{av}_{hit,pad}}{Q^{av}_{hit,all}} \tag{1}$$

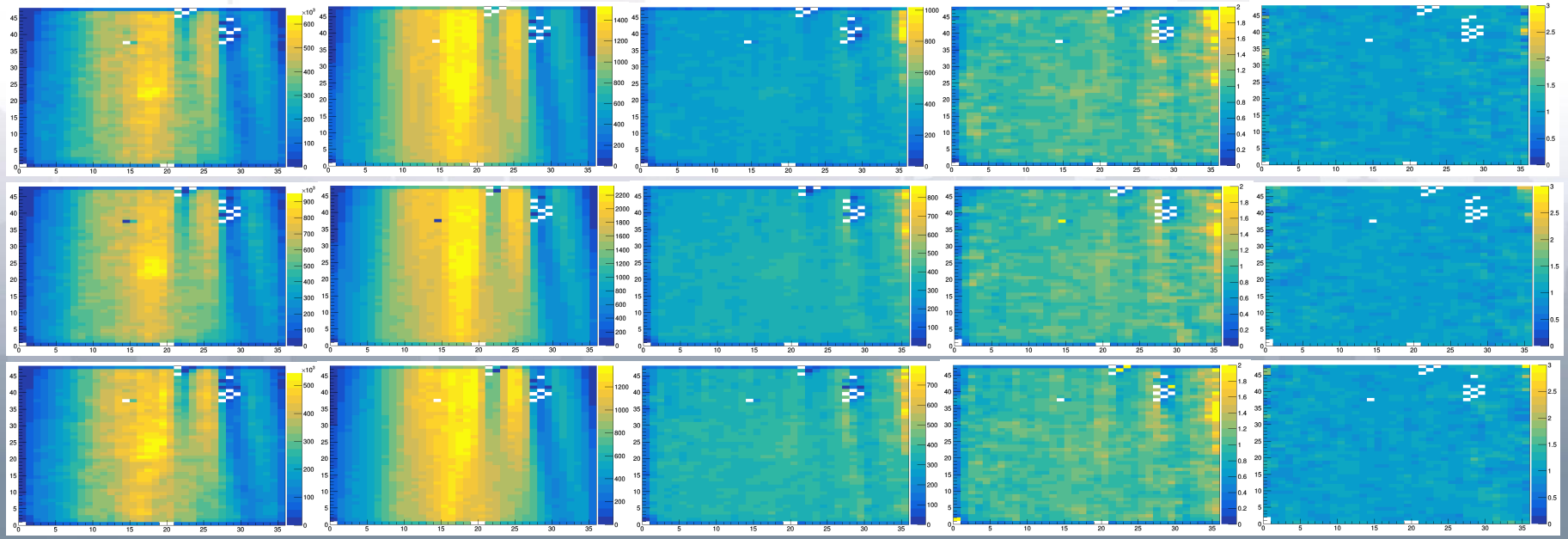


Figure 1: Sum of the charge, Hits, Average charge, Inter-calibration factor (r) and after applied r for Protons (top), Pions (center) and Electrons (bottom) with 0.8GeV/c and 10cm drift distance.

Inter Calibration and Gain

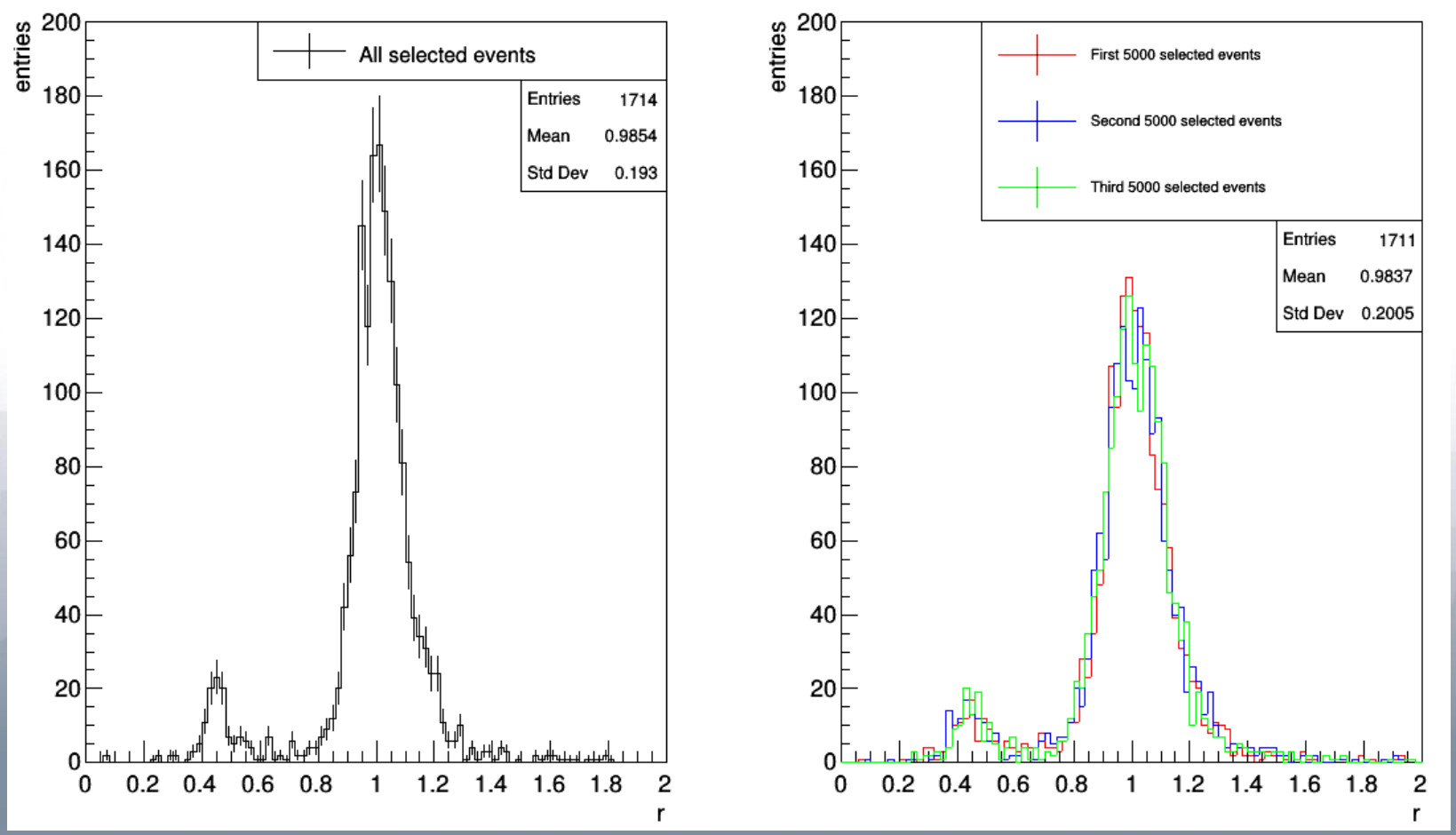


Figure 2: Gain uniformity (left) and gain stability (right) for Protons with 0.8GeV/c and 10cm drift distance.

Inter Calibration and Gain

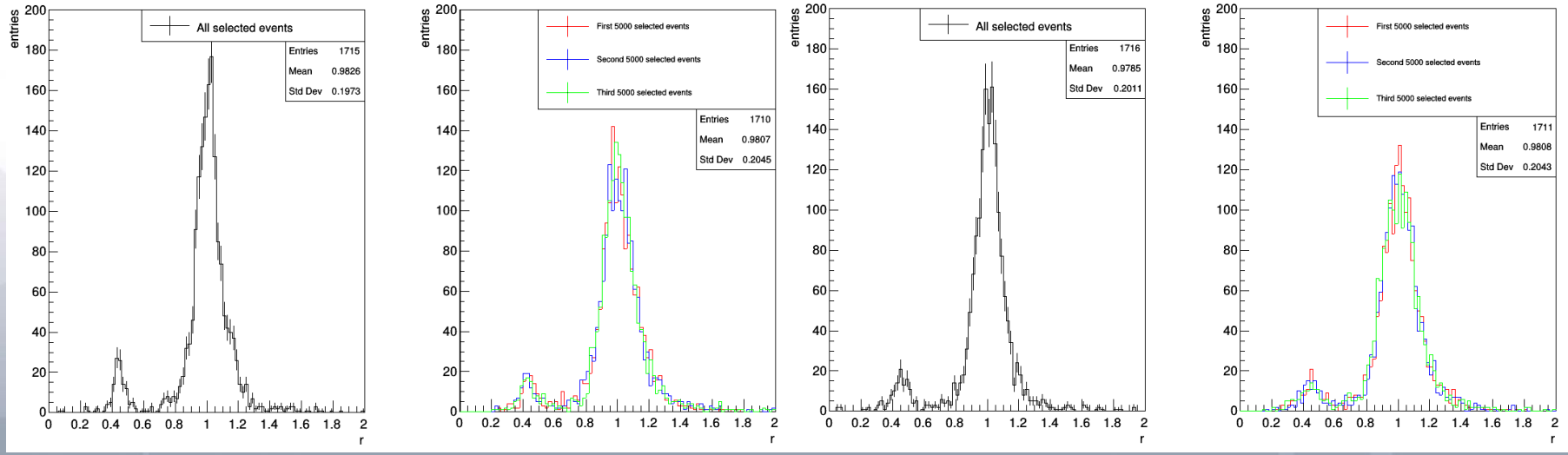
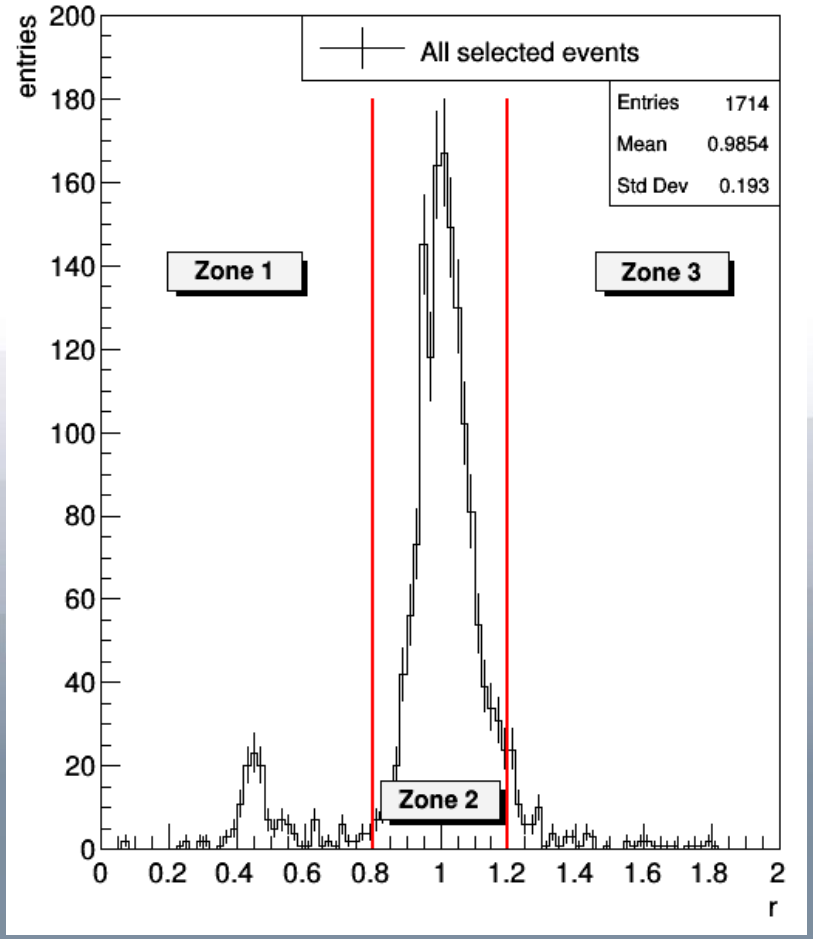


Figure 3: Gain uniformity and gain stability for Pions (left) and Electrons (right) with 0.8GeV/c and 10cm drift distance.

Inter Calibration and Gain



Inter Calibration and Gain

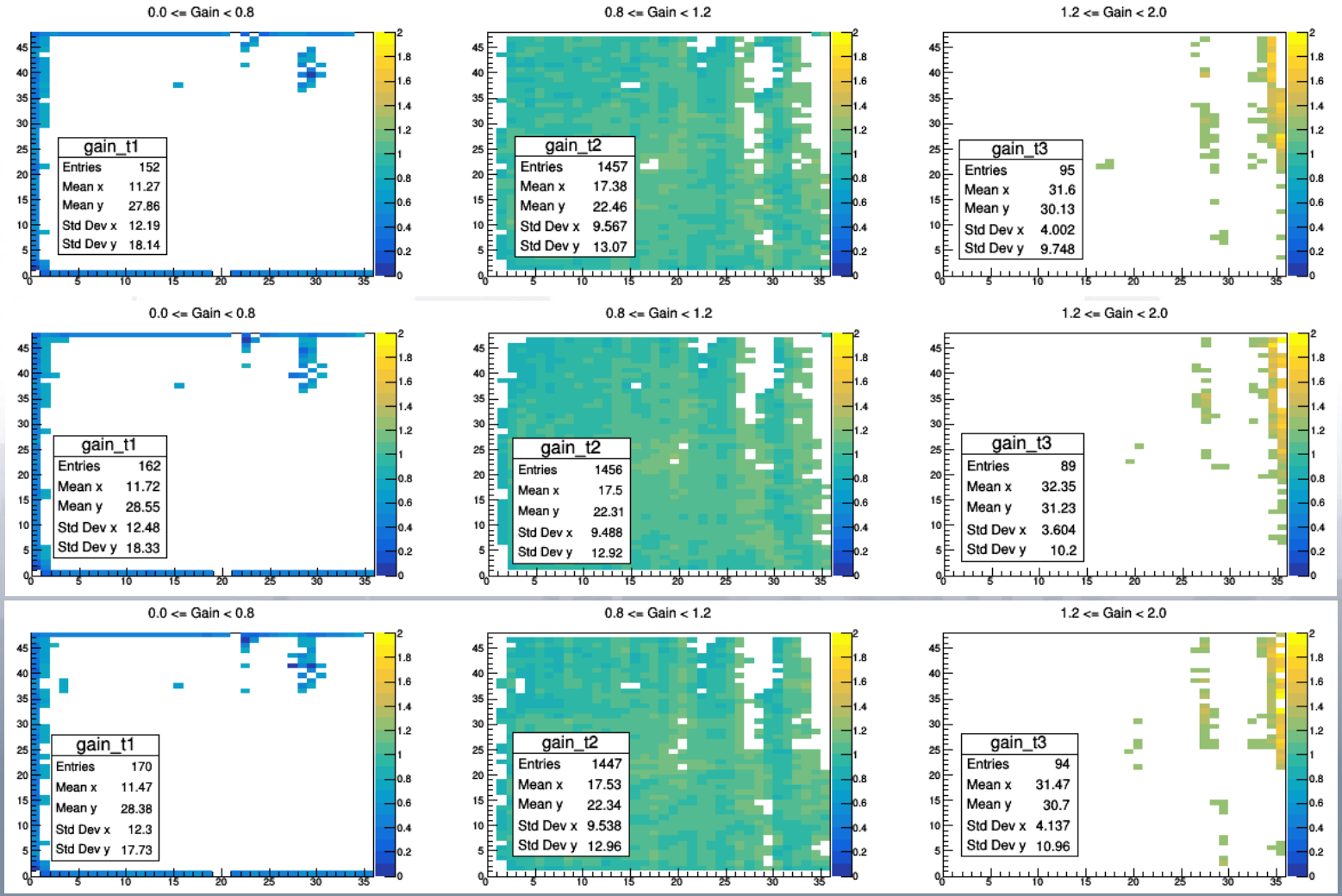


Figure 4: Pad with different gain range for Protons (top), Pions (center) and Electrons (bottom) with 0.8GeV/c and 10cm drift distance.

THANK YOU!

TO BE CONTINUE ...