Step by step TWIM Calibration

6. April 2022

0.1 Overview

For this calibration I used the data of Experiment S455 in March 2021, Run 273, subruns 1-48.

1. Alignment of the energy per Anode for each Section
2. Alignment of the energy per Section

Info: I always count from 0 to 15.

0.2 Alignment of the energy per Anode for each Section

For the Energy, you should first align all teh gain per anode by plotting for each section:
Eraw[anode i] vs Eraw[anode ref].
anode ref = the 5th anode I plot these 2D histos only for events where the 16 anodes per section have seen an ion. (no specific tpat selection needed).

0.2.1 Computing

First run the program "small_script_hist.C" for all subruns. Then use "hadd" to add up the .root files. The combined .root file can then be used for the scrip called "retrieve_fits_hist.C ". This one makes nice canvases for the plots anode[i] vs anode_ref and stores the fit parameters under parameters_twim_anodes.csv.

0.3 Calibration of the sections

0.4 Preparation of the MWPCs