



Low Gain/drift Analysis

Runs 42856 - 43185 // Standard - LOW Gain

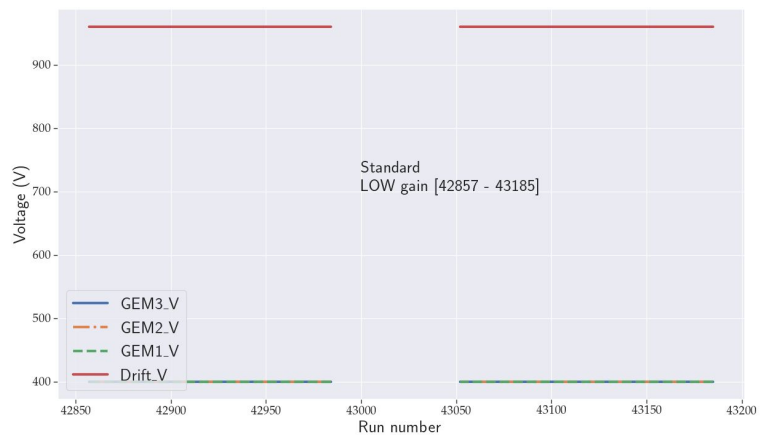
Runs 50899 - 51909 // Standard, Low Gain

**Runs 51910 - 52401 – 480V
Standard, Low Gain, Low Drift Field**

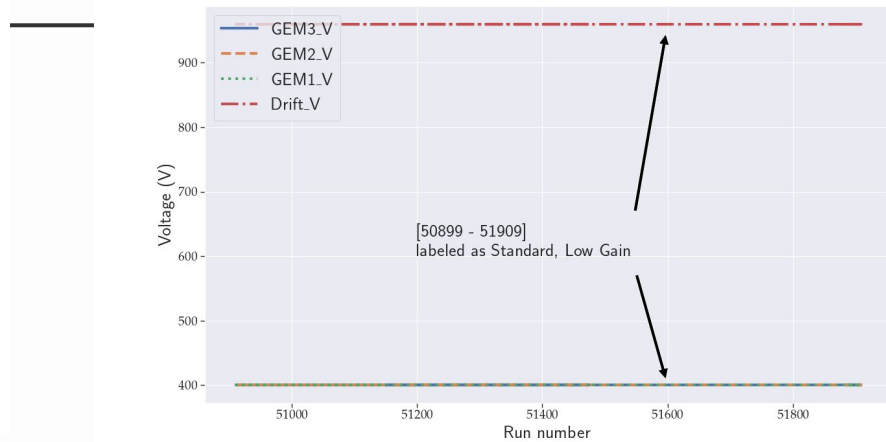
**Runs 52402 - 52656 – 600V
Standard, Low Gain, Low Drift Field**

Runs 55167 - 56380 // Standard, Low Gain

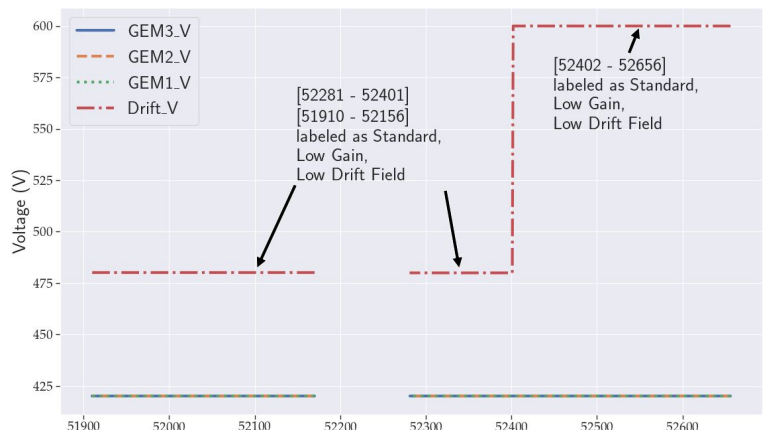
Runs 42856 - 43185 14/12/23 -> 16/12/23



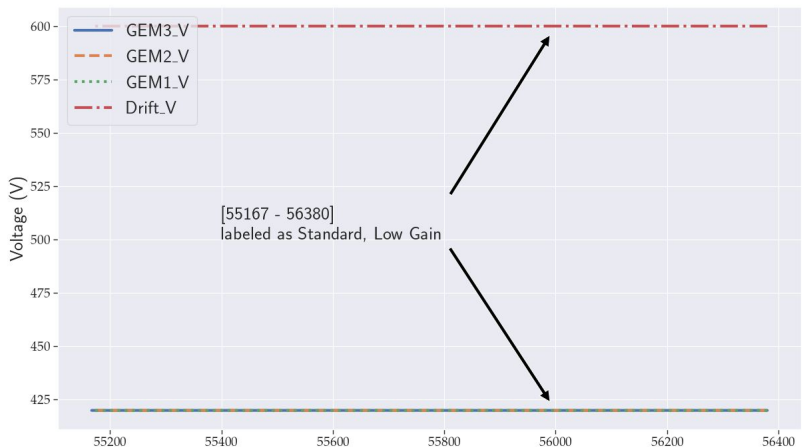
Runs 50899 - 51909 05/03/24 -> 12/03/24



Runs 51910 - 52656 12/03/24 -> 17/03/24



Runs 55167 - 56380 08/04/24 -> 17/04/24



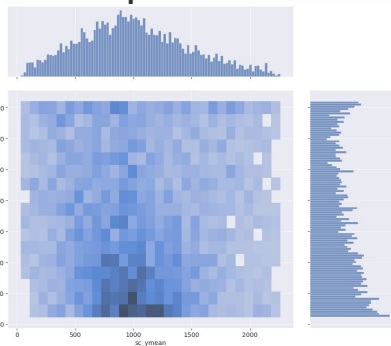


sc_mean_y vs sc_mean_x

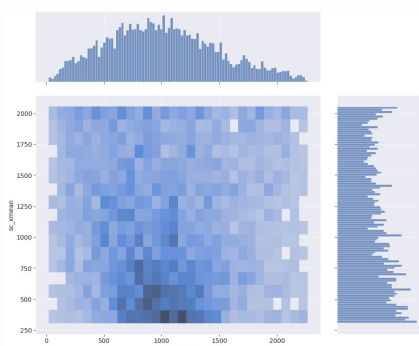
sc_mean_y vs sc_mean_x

Runs 42856 - 43185 14/12/23 -> 16/12/23

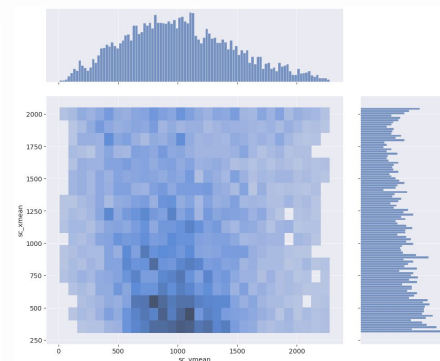
STEP 1



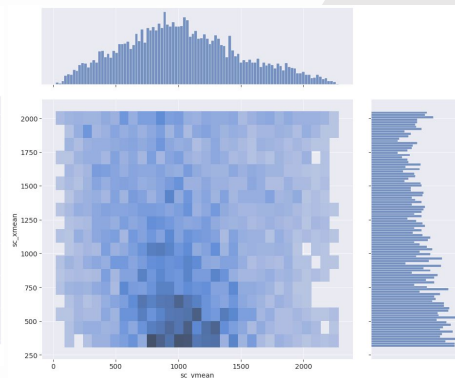
STEP 2



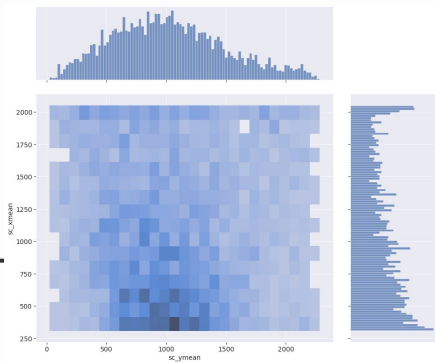
STEP 3



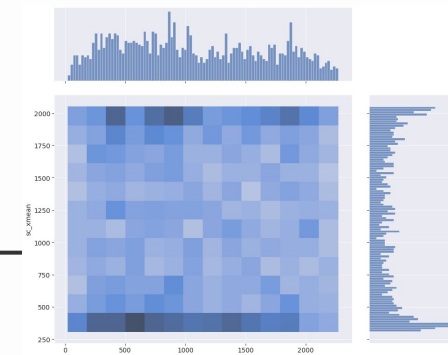
STEP 4



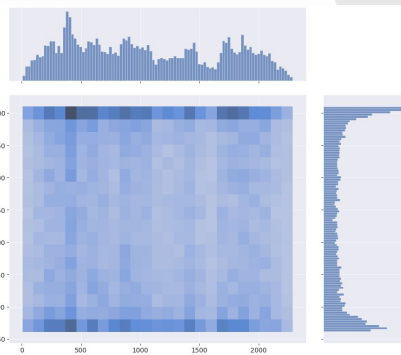
STEP 5



Parking



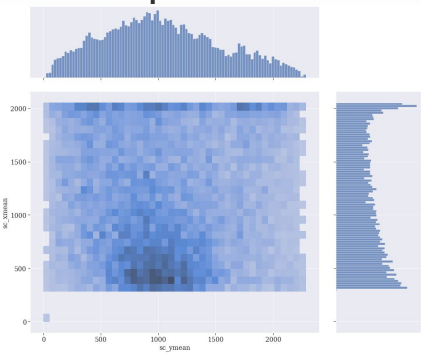
Pedestal



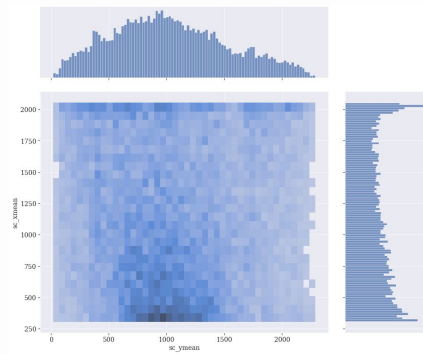
sc_mean_y vs sc_mean_x

Runs 50899 - 51909 05/03/24 -> 12/03/24

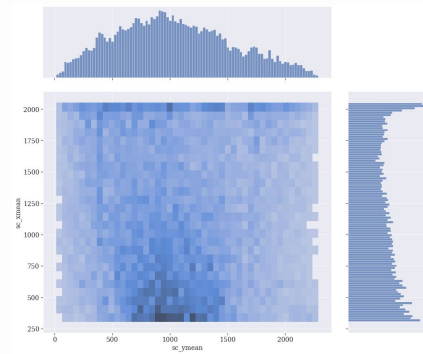
STEP 1



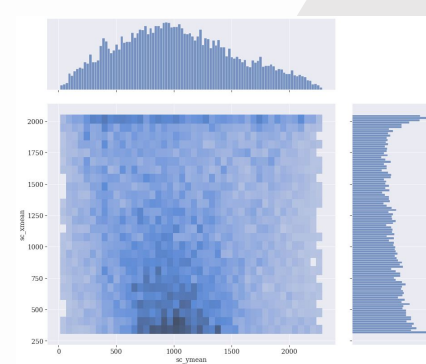
STEP 2



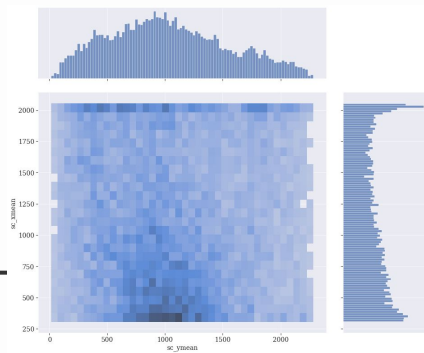
STEP 3



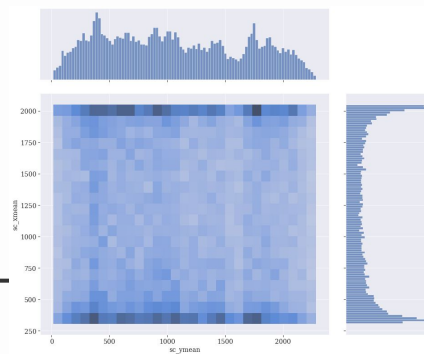
STEP 4



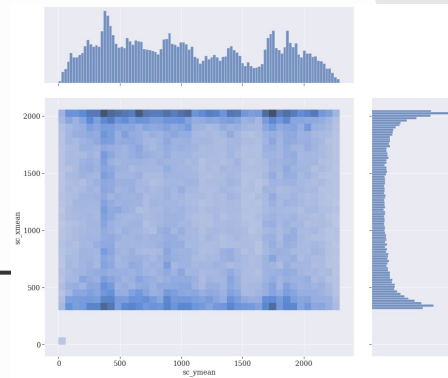
STEP 5



Parking



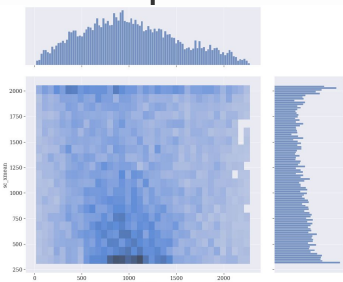
Pedestal



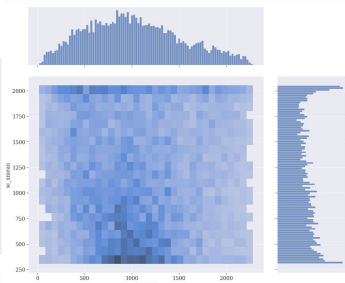
sc_mean_y vs sc_mean_x

Runs 51910 - 52402 12/03/24 -> 15/03/24 -480V DRIFT

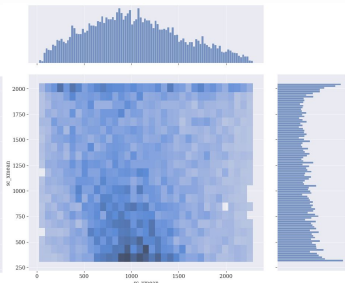
STEP 1



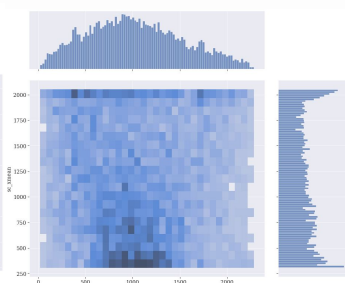
STEP 2



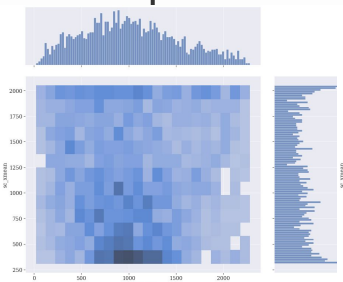
STEP 3



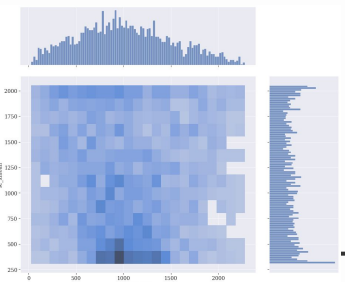
STEP 4



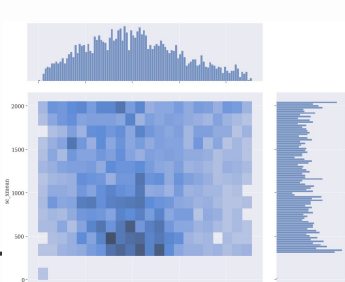
STEP 6



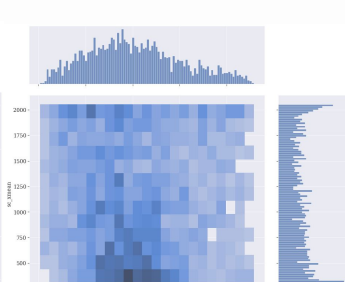
STEP 7



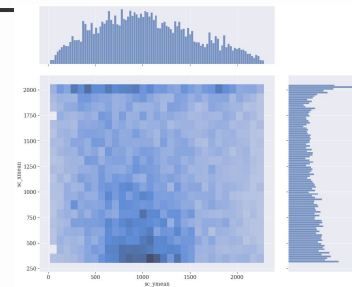
STEP 8



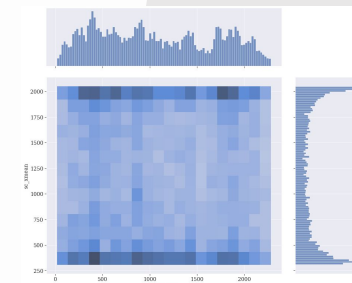
STEP 9



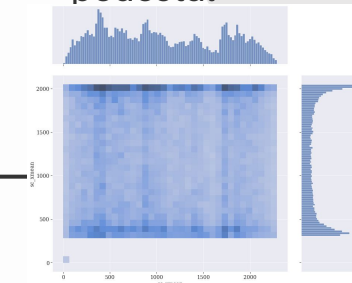
STEP 5



parking



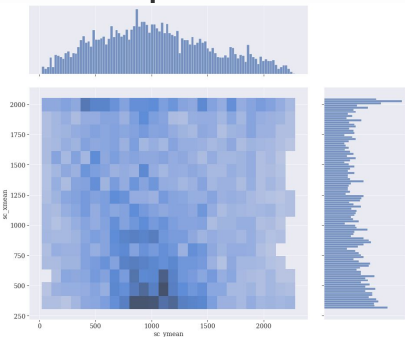
pedestal



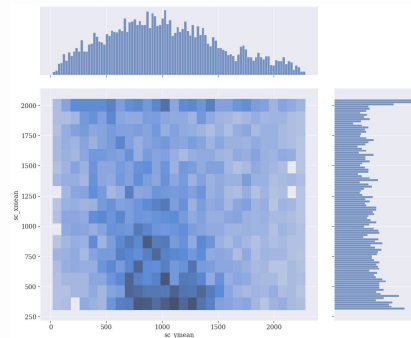
sc_mean_y vs sc_mean_x

Runs 52402 - 52656 15/03/24 -> 17/03/24 -600V DRIFT

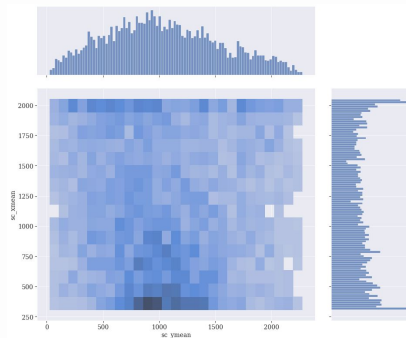
STEP 1



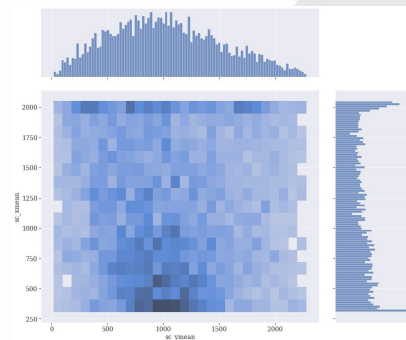
STEP 2



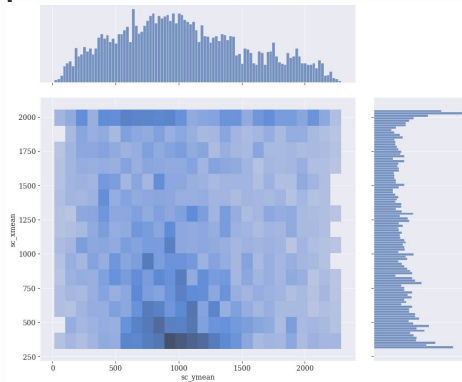
STEP 3



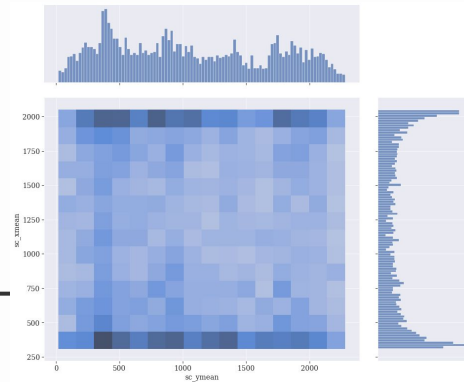
STEP 4



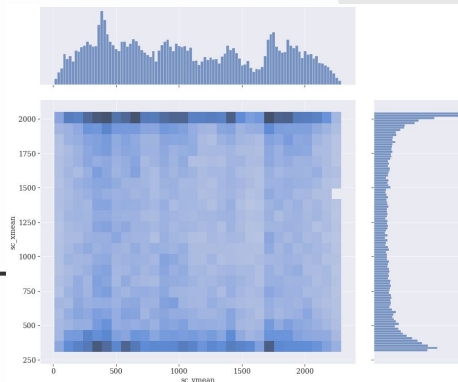
STEP 5



Parking



Pedestal

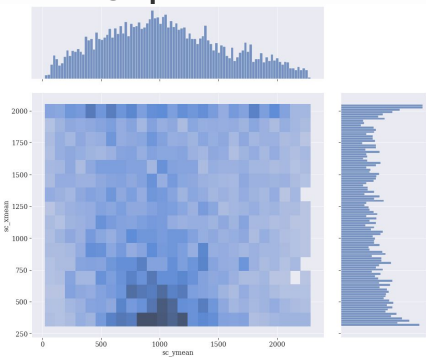


sc_mean_y vs sc_mean_x

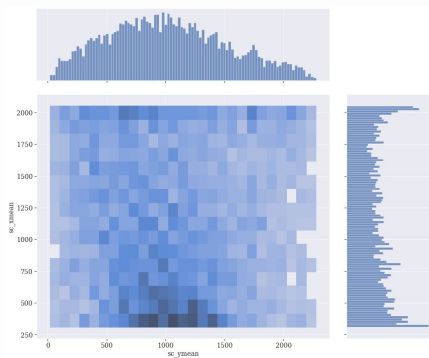
Runs 4 55167 - 56380

Runs 55167 - 56380 08/04/24 -> 17/04/24

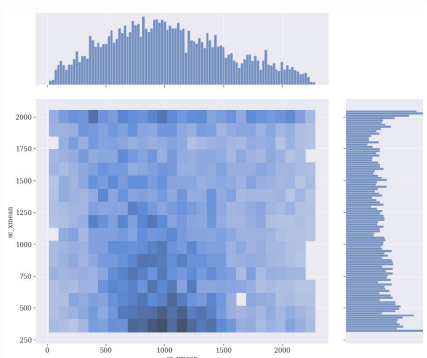
STEP 1



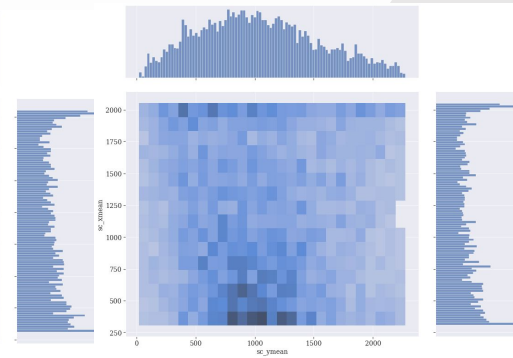
STEP 2



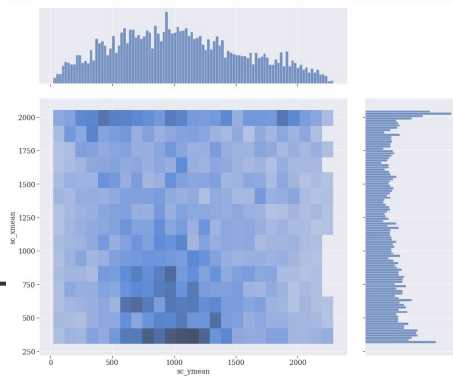
STEP 3



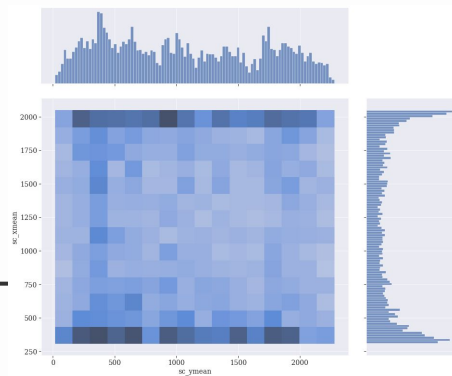
STEP 4



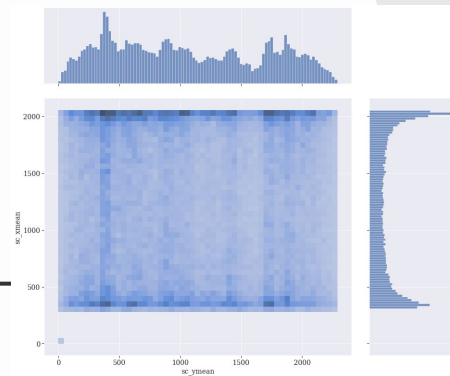
STEP 5



Parking



Pedestal

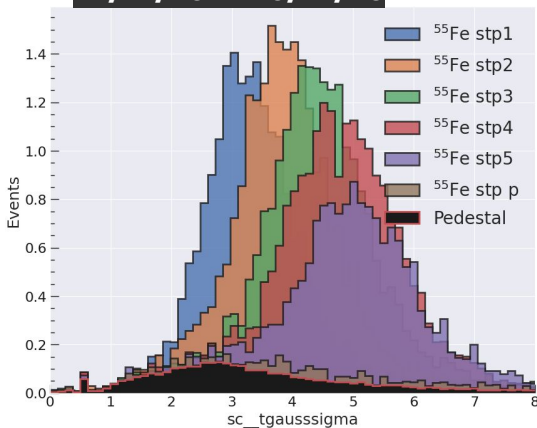




SC_tgaussSigma

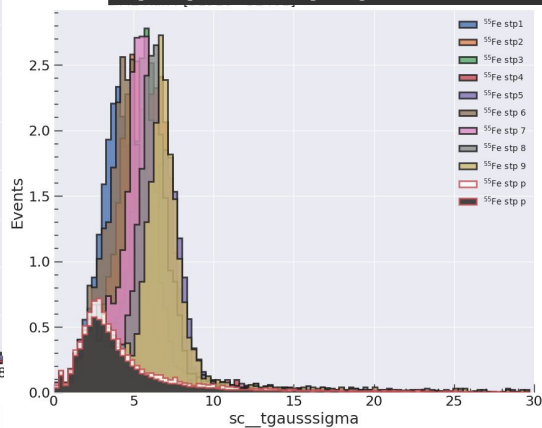
Runs 42856 - 43185

14/12/23 -> 16/12/23



Runs 51910 - 52402

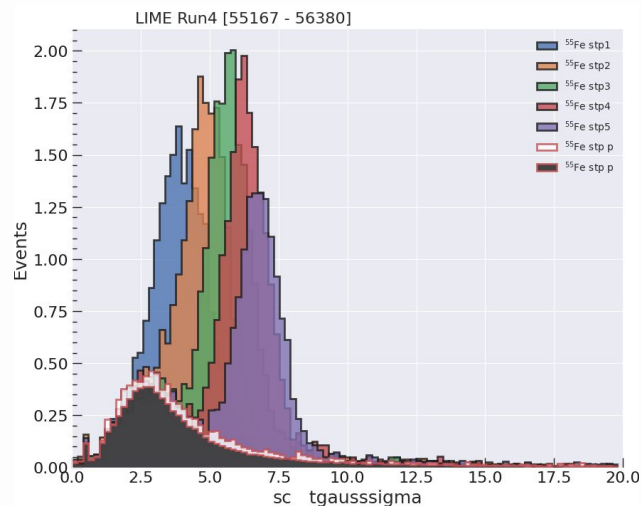
12/03/24 -> 15/03/24 -480V DRIFT



SC_tgaussSigma

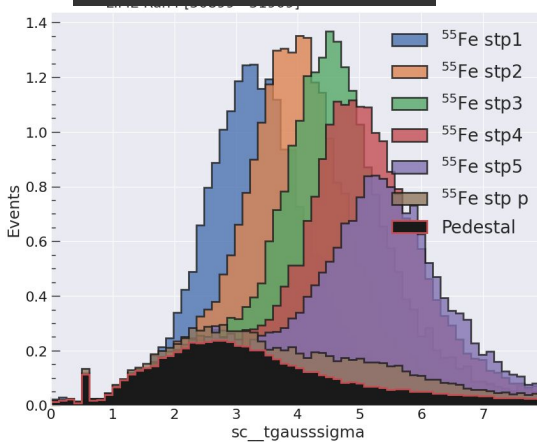
Runs 55167 - 56380

08/04/24 -> 17/04/24



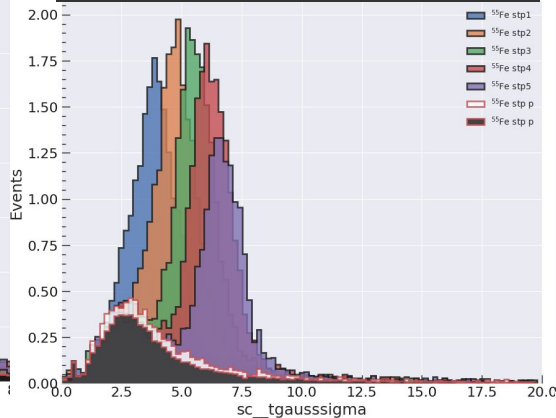
Runs 50899 - 51909

05/03/24 -> 12/03/24



Runs 52402 - 52656

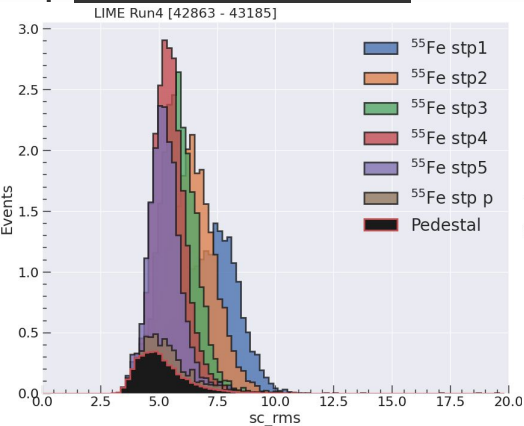
15/03/24 -> 17/03/24 -600V DRIFT



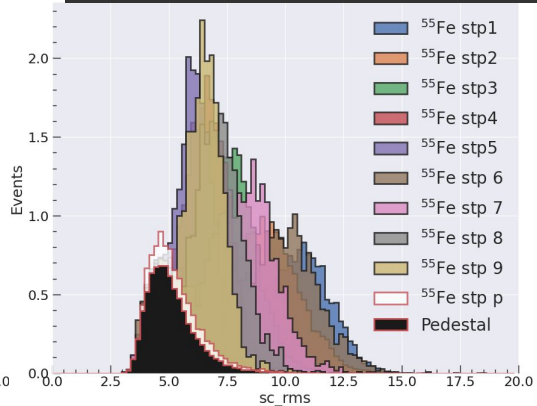


SC_rms

Runs 42856 - 43185
14/12/23 -> 16/12/23

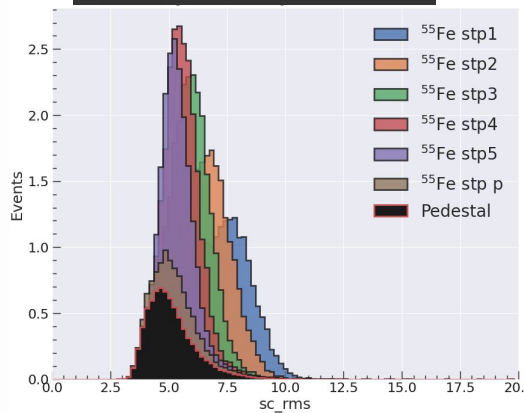


Runs 51910 - 52402
12/03/24 -> 15/03/24 -480V DRIFT

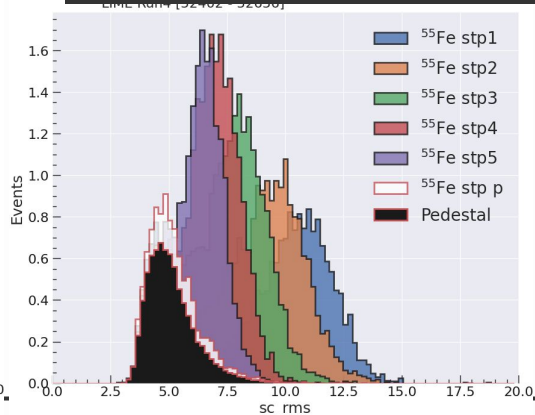


SC_rms

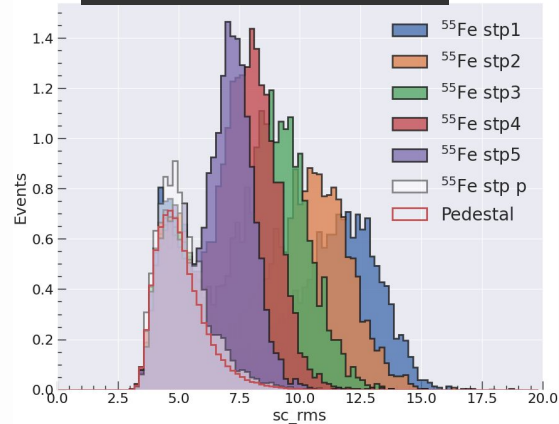
Runs 50899 - 51909
05/03/24 -> 12/03/24



Runs 52402 - 52656
15/03/24 -> 17/03/24 -600V DRIFT



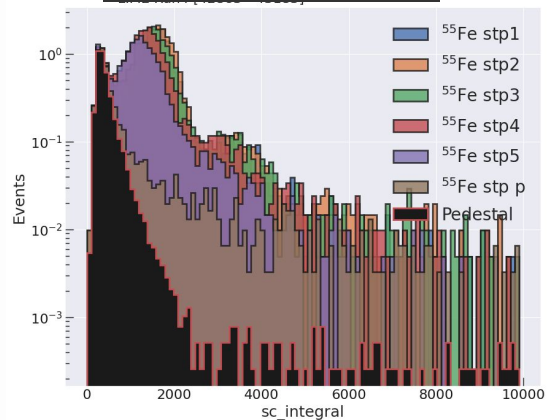
Runs 55167 - 56380
08/04/24 -> 17/04/24



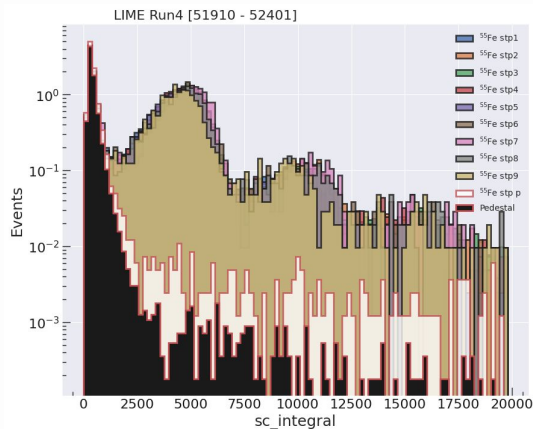


SC_integral

Runs 42856 - 43185
14/12/23 -> 16/12/23

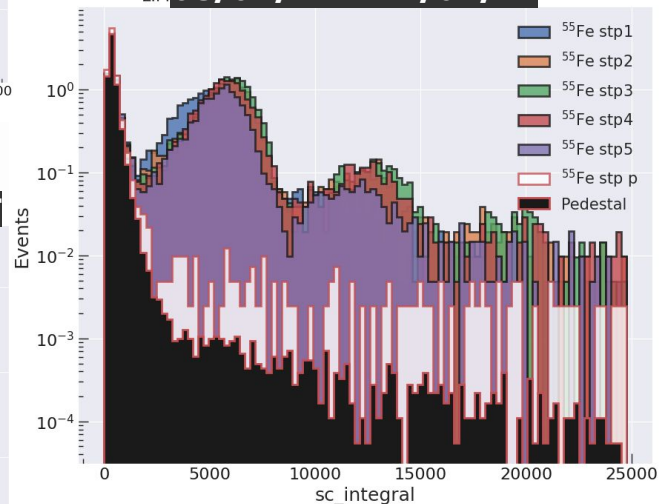


Runs 51910 - 52402
12/03/24 -> 15/03/24 -480V DRIFT

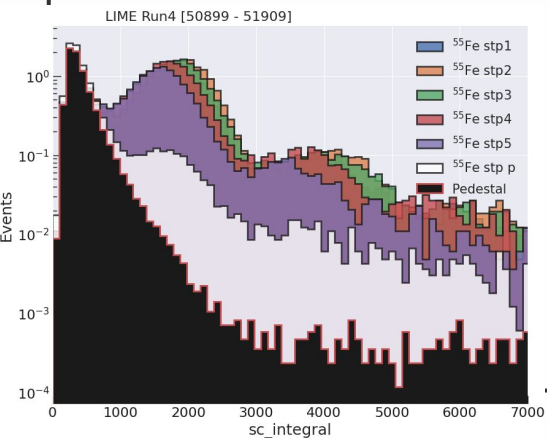


SC_integral

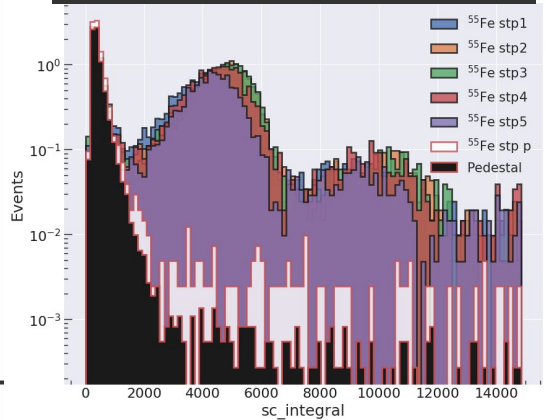
Runs 55167 - 56380
08/04/24 -> 17/04/24



Runs 50899 - 51909
05/03/24 -> 12/03/24



Runs 52402 - 52656
15/03/24 -> 17/03/24 -600V DRIFT

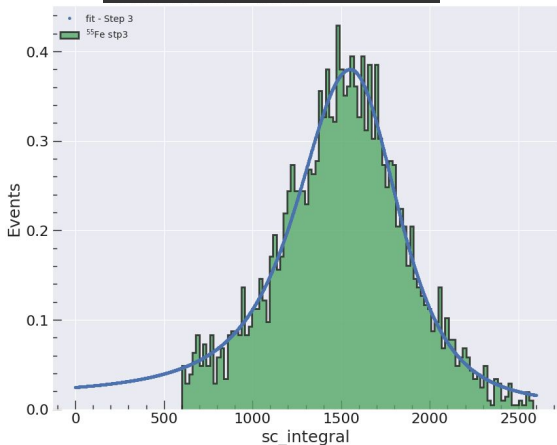


Fitted the first peak of each step for each run interval considered.

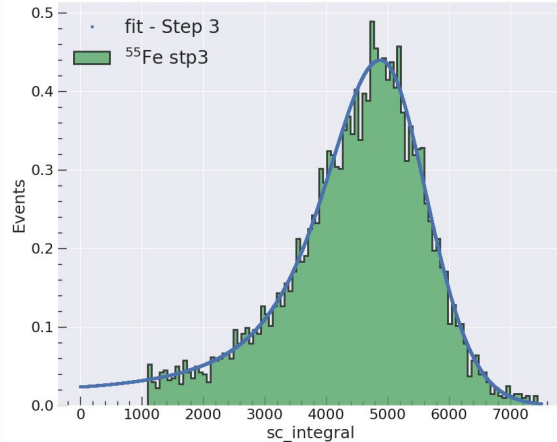
To runs 50899 - 51909 a gaussian fit was applied to the steps.

For the remainder a bifurcated Gaussian with asymmetric tails was applied (Cruijff).

Runs 42856 - 43185
14/12/23 -> 16/12/23



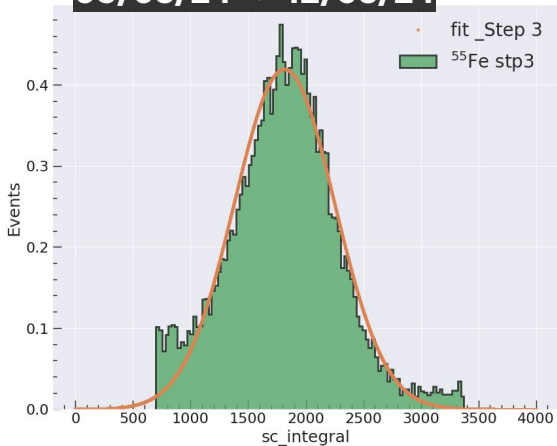
Runs 51910 - 52402
12/03/24 -> 15/03/24 -480V DRIFT



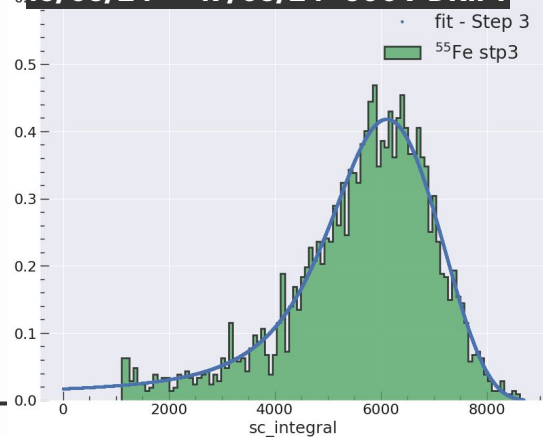
SC_integral

Only step 3 fit is shown.

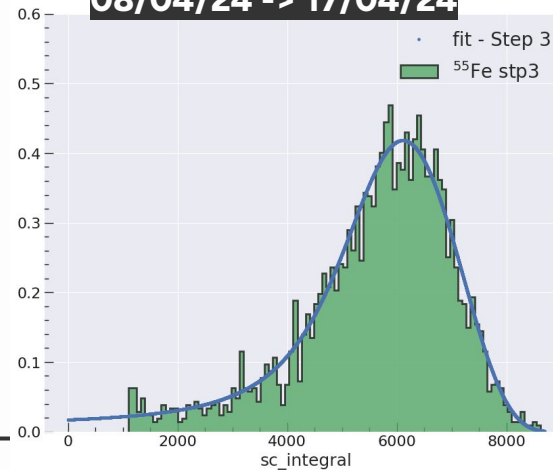
Runs 50899 - 51909
05/03/24 -> 12/03/24



Runs 52402 - 52656
15/03/24 -> 17/03/24 -600V DRIFT

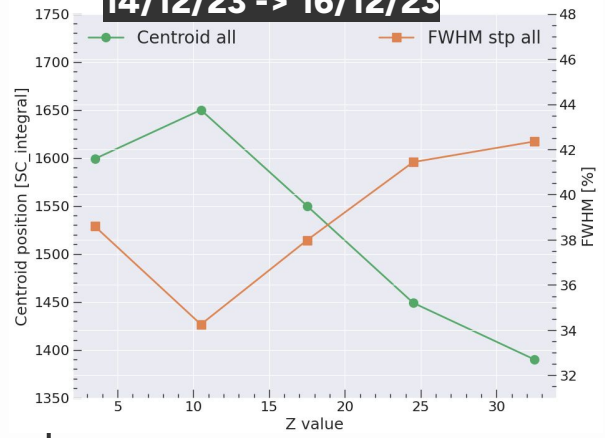


Runs 55167 - 56380
08/04/24 -> 17/04/24



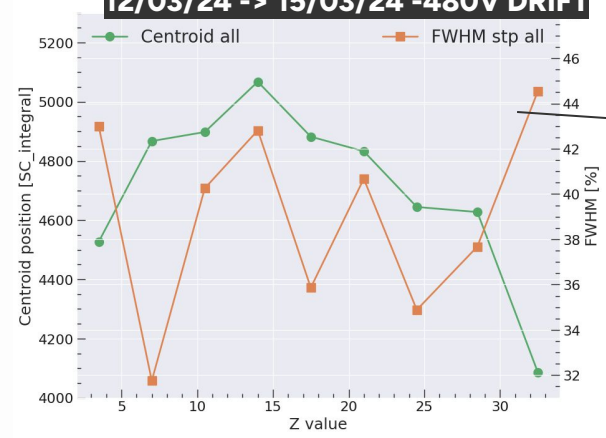
Runs 42856 - 43185

14/12/23 -> 16/12/23

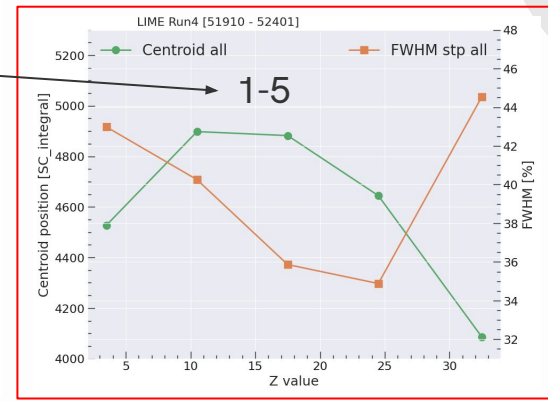


Runs 51910 - 52402

12/03/24 -> 15/03/24 -480V DRIFT

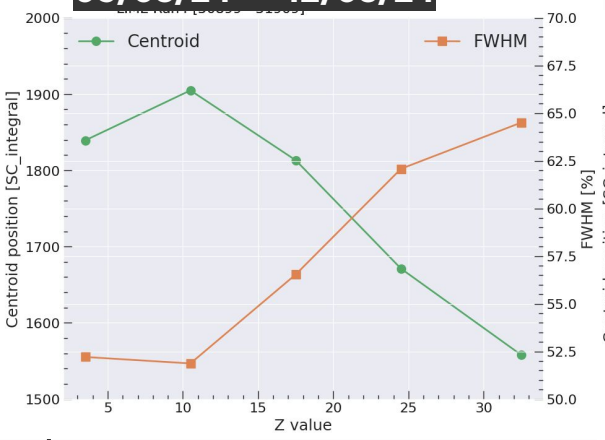


SC_integral



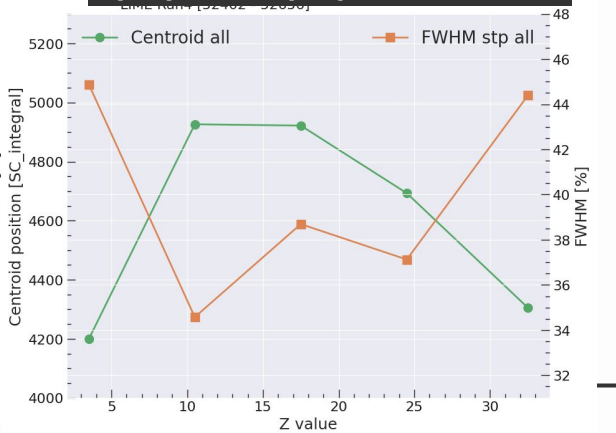
Runs 50899 - 51909

05/03/24 -> 12/03/24



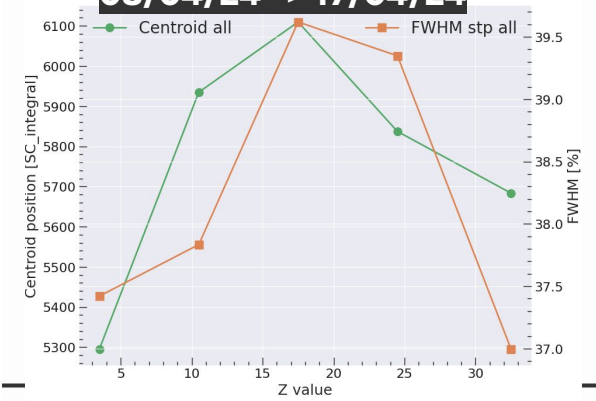
Runs 52402 - 52656

15/03/24 -> 17/03/24 -600V DRIFT



Runs 55167 - 56380

08/04/24 -> 17/04/24



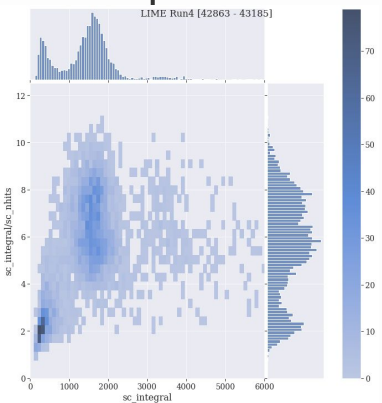


Sc_integral vs sc_integral/sc_nhits

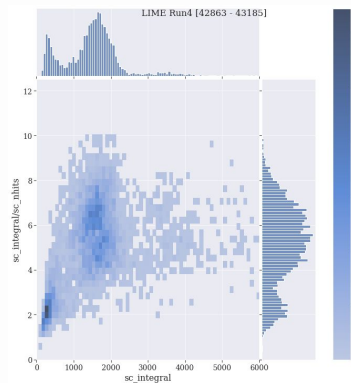
Sc_integral vs sc_integral/sc_nhits

Runs 42856 - 43185 14/12/23 -> 16/12/23

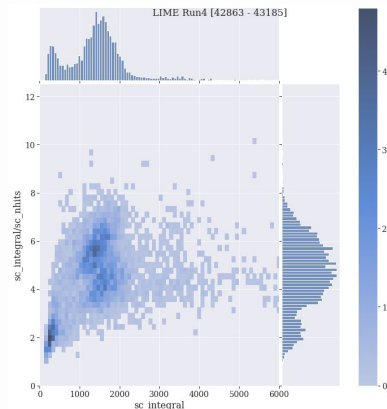
STEP 1



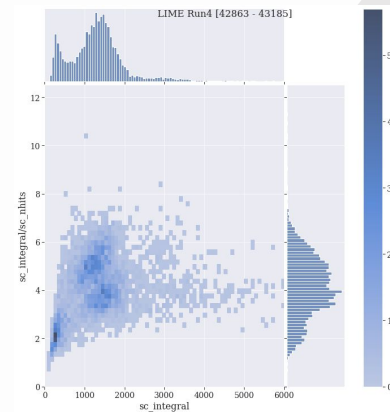
STEP 2



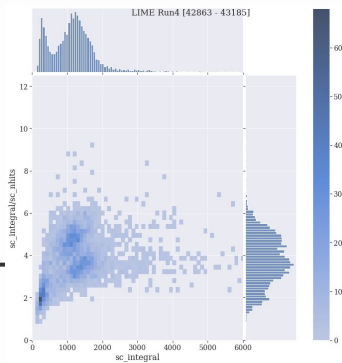
STEP 3



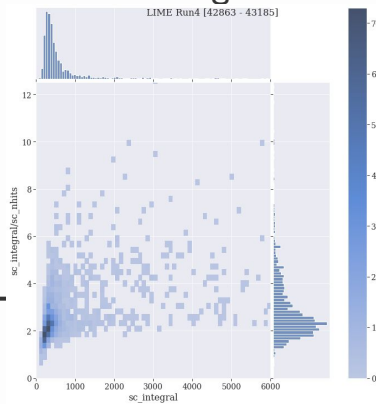
STEP 4



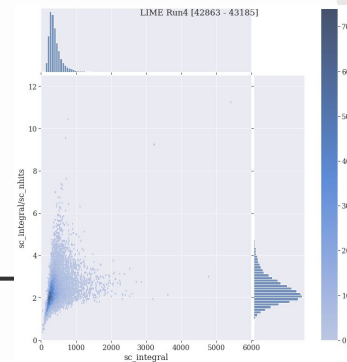
STEP 5



Parking



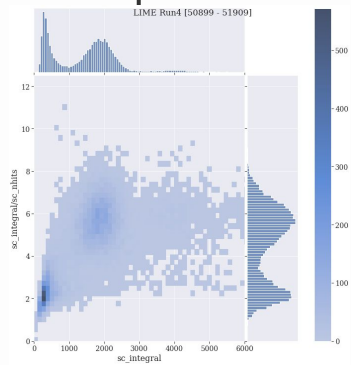
Pedestal



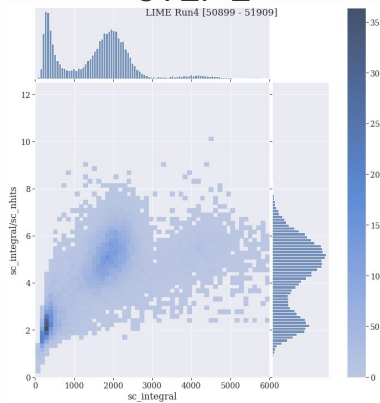
Sc_integral vs sc_integral/sc_nhits

Runs 50899 - 51909 05/03/24 -> 12/03/24

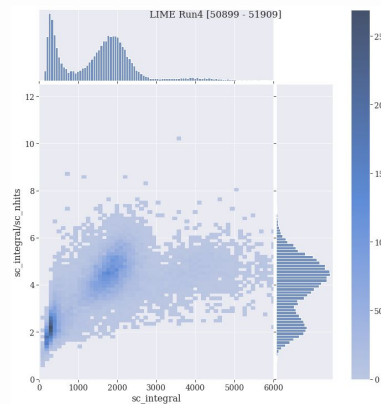
STEP 1



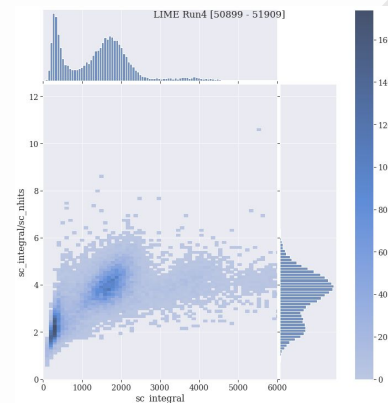
STEP 2



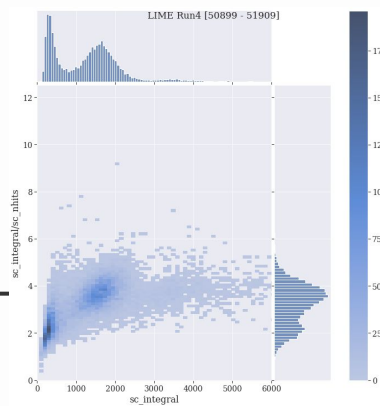
STEP 3



STEP 4



STEP 5



In progress

Sc_integral vs sc_integral/sc_nhits for the Fe55 data for all steps and run intervals.

Redo fits for all peaks of fe55 data.

Analysis on the Background data.

Next steps

**Background data in function of energy after calibration.
Get percentage of noise clusters vs total clusters.**

**Study the effect of the cuts in the data. Start with
the standard cuts.**

Optimize the cuts for the low gain configuration

Establish a comparison with the high gain data.