Analysis Report

R. Yonamine
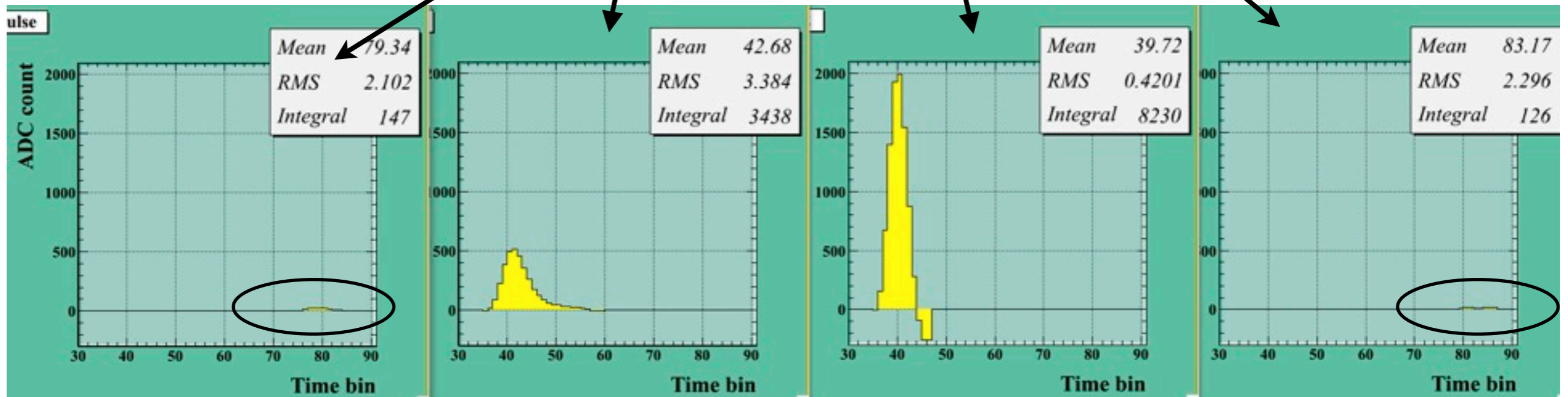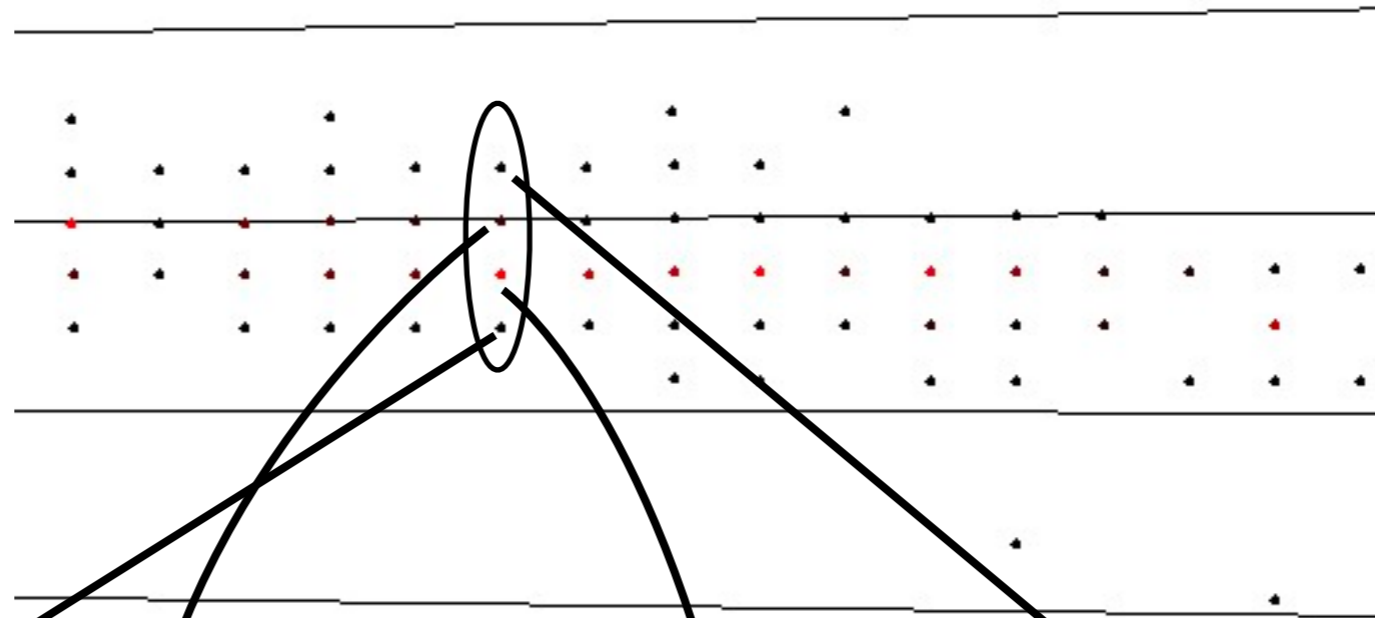
26th Feb. 2013

Micromegas

Pulse shape

**Run 3040
(short drift length, 1T)**

Pulse Reco. Param.
MinimumPulseHeight 10
MinimumPulseLength 7
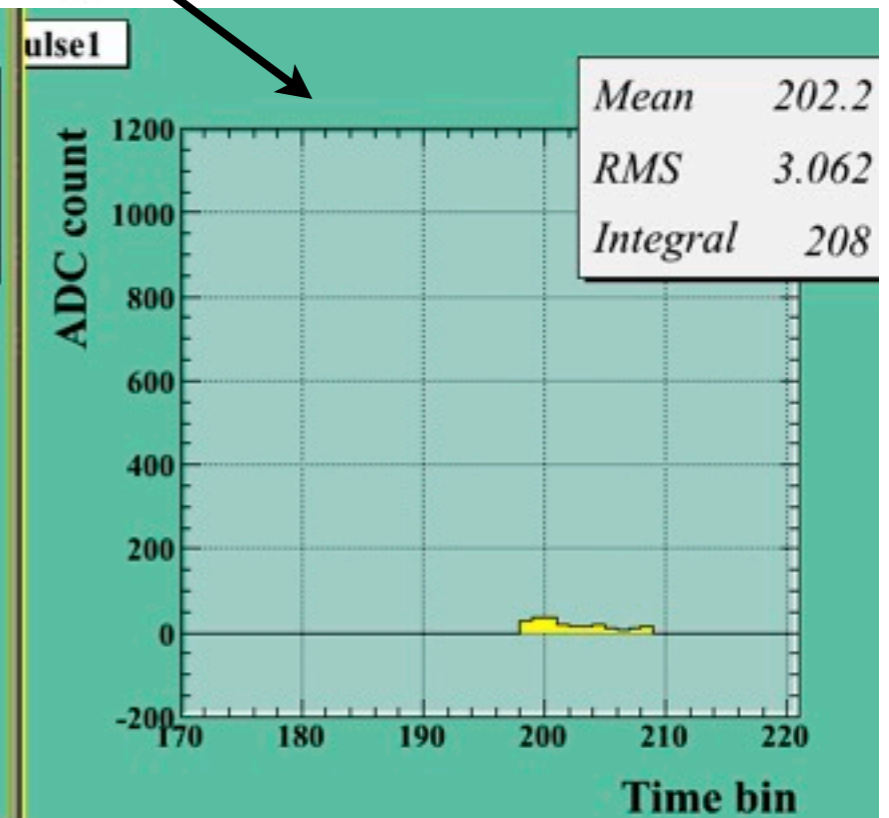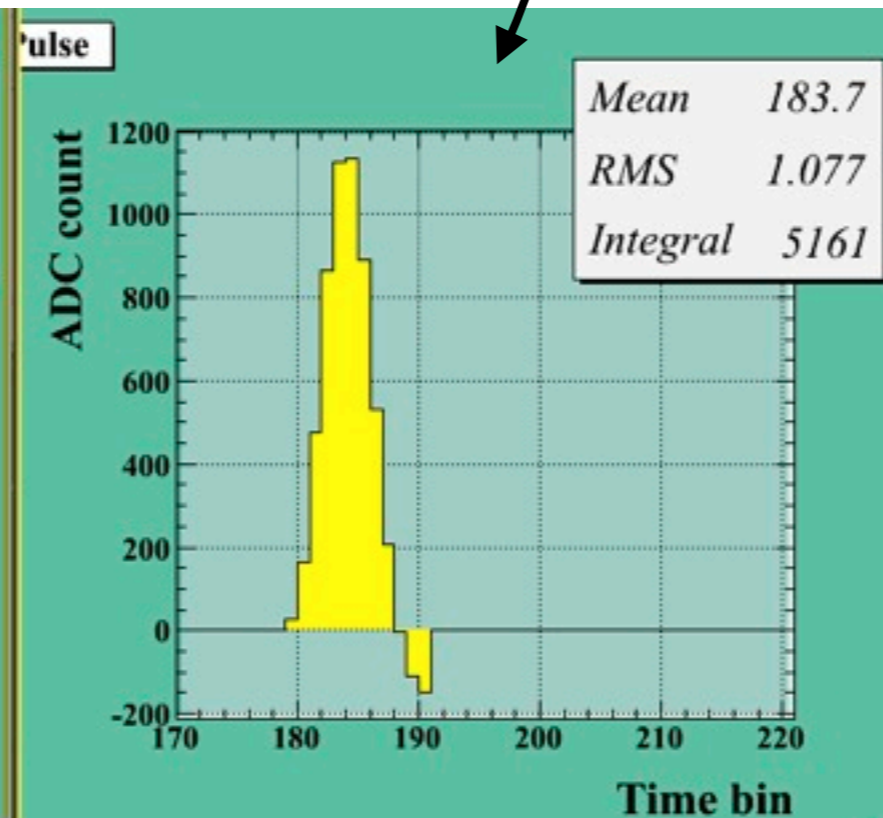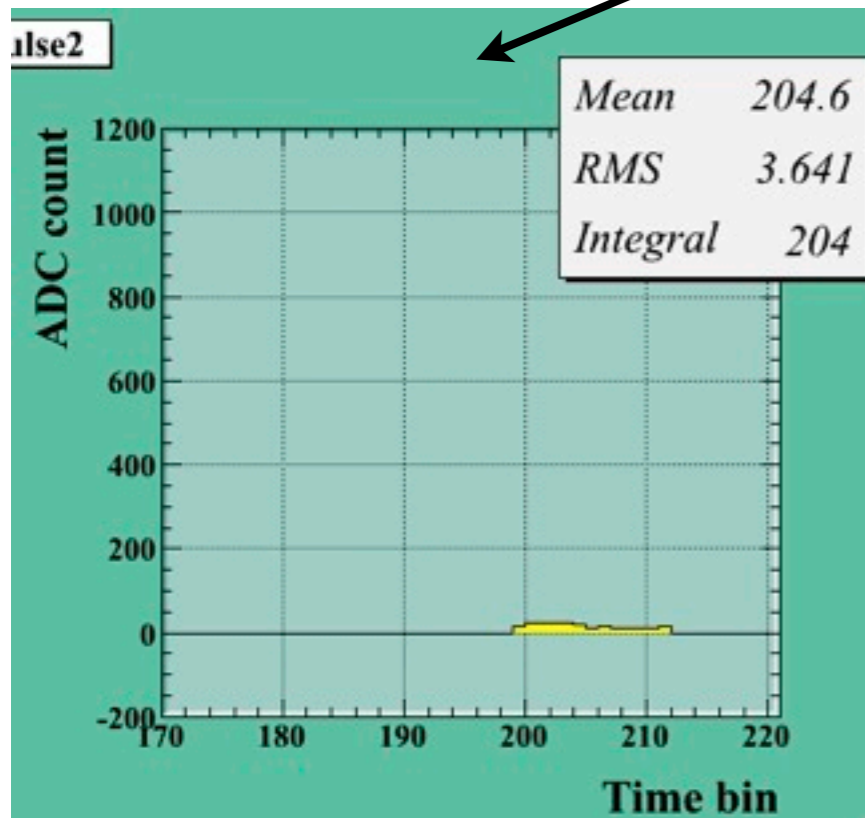PulseStartThreshold 6
PulseEndThreshold 6

Mean	79.34
RMS	2.102
Integral	147

Mean	42.68
RMS	3.384
Integral	3438

Mean	39.72
RMS	0.4201
Integral	8230

Mean	83.17
RMS	2.296
Integral	126

Micromegas

Pulse shape

**Run 3050
(long drift length, 1T)**

**Pulse Reco. Param.
MinimumPulseHeight 10
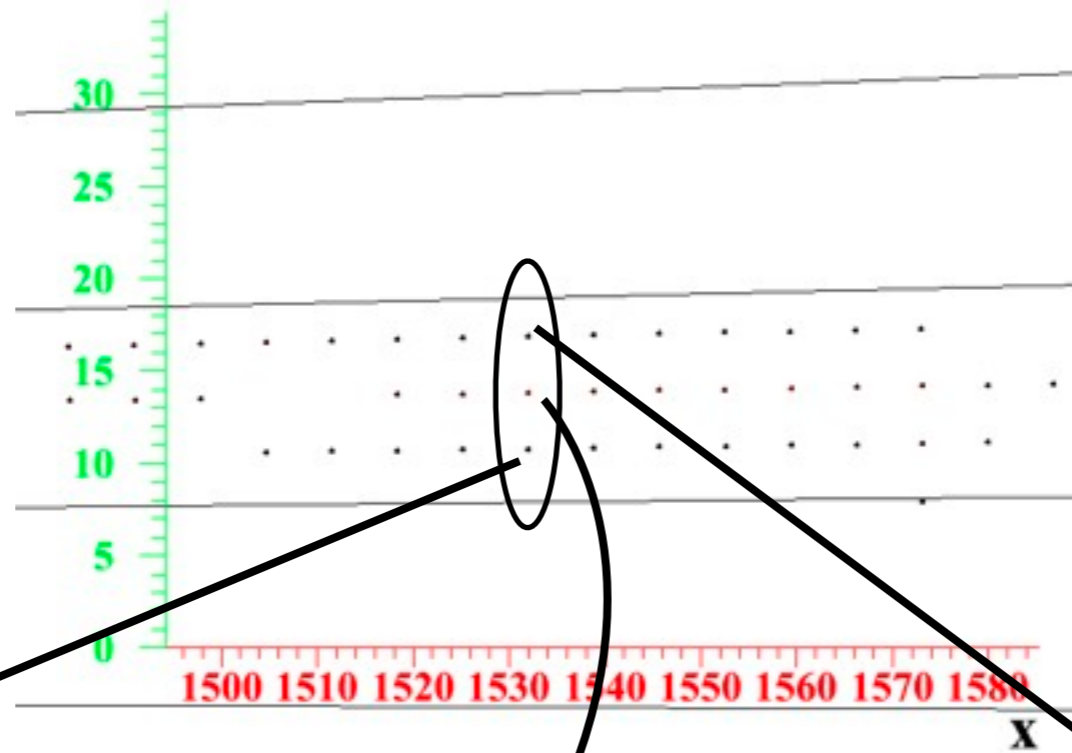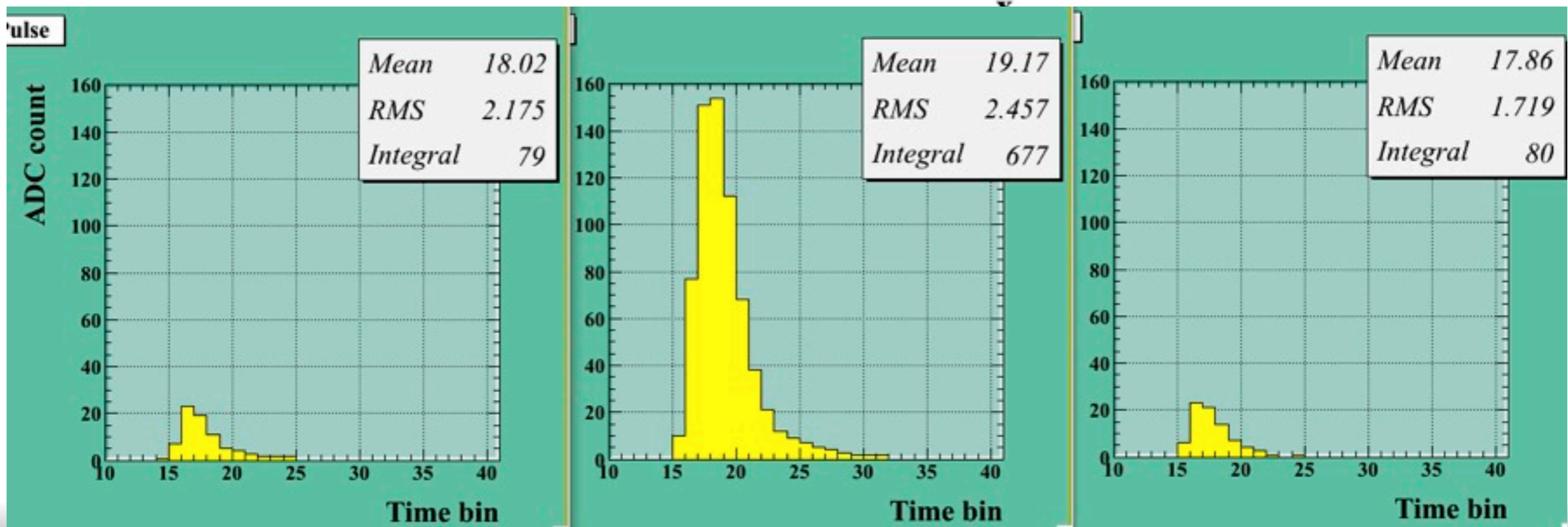MinimumPulseLength 7
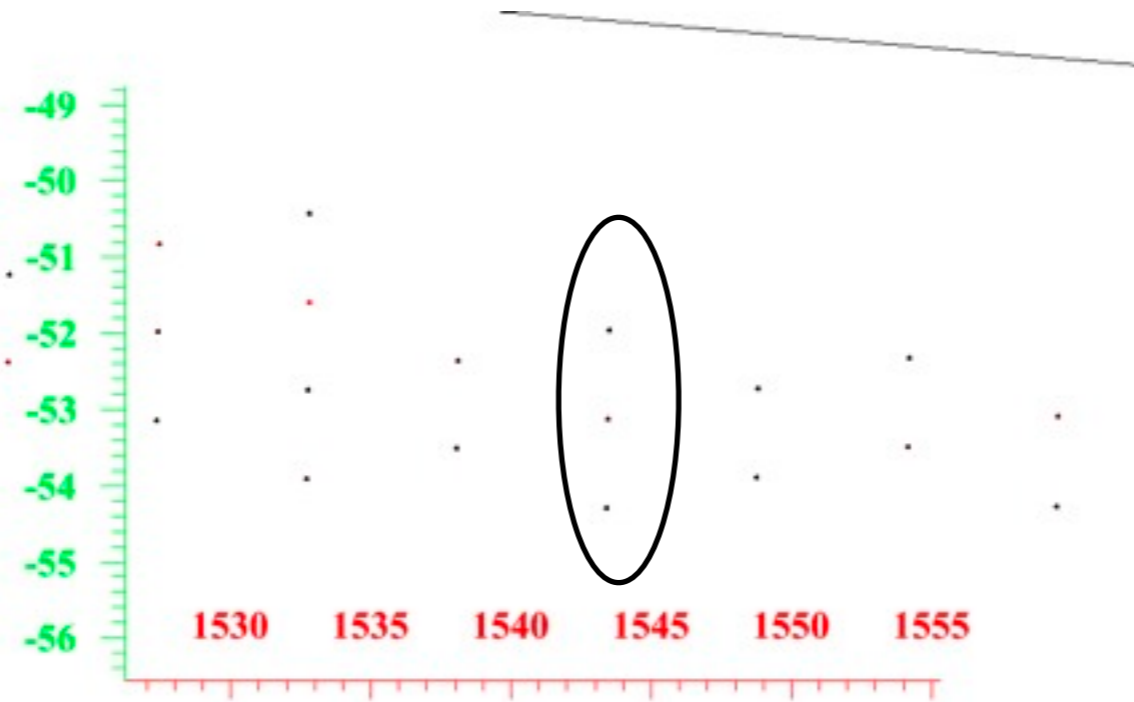PulseStartThreshold 6
PulseEndThreshold 6**

Double-GEM

Pulse shape

z~2.5cm, 1T

Pulse Reco. Param.
MinimumPulseHeight 10
MinimumPulseLength 3
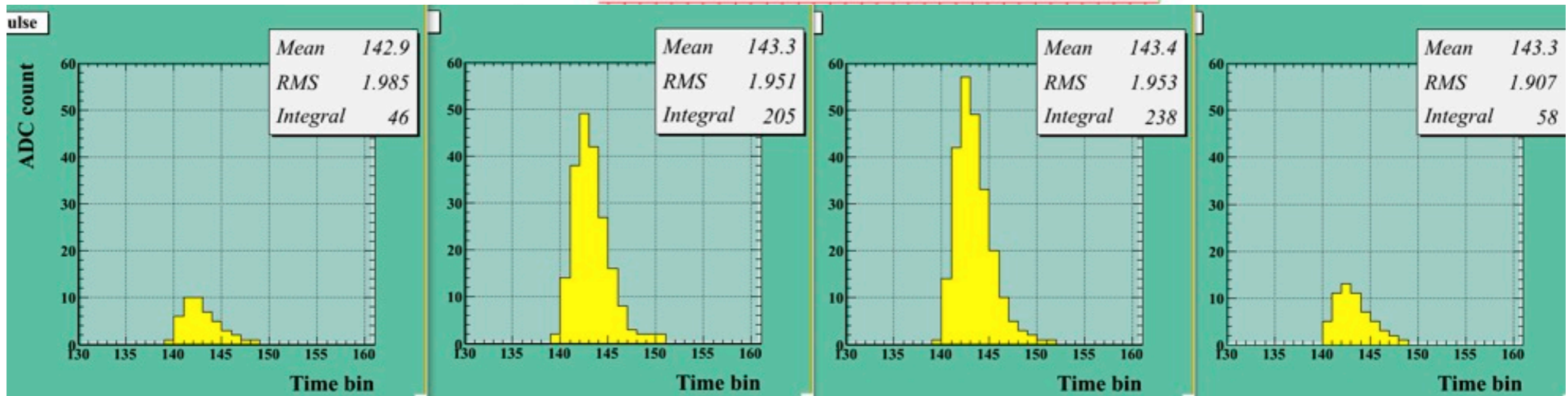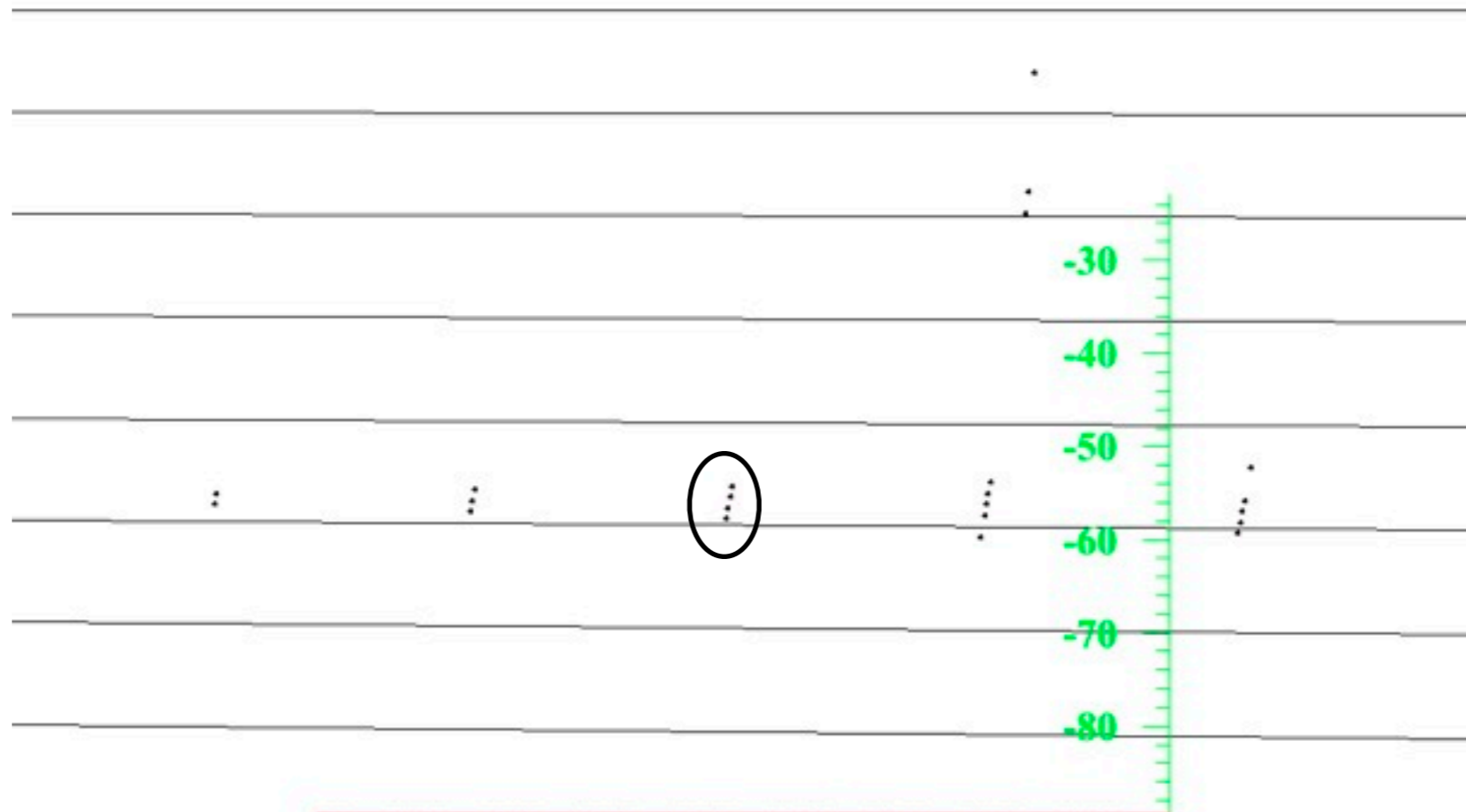PulseStartThreshold 6
PulseEndThreshold 6
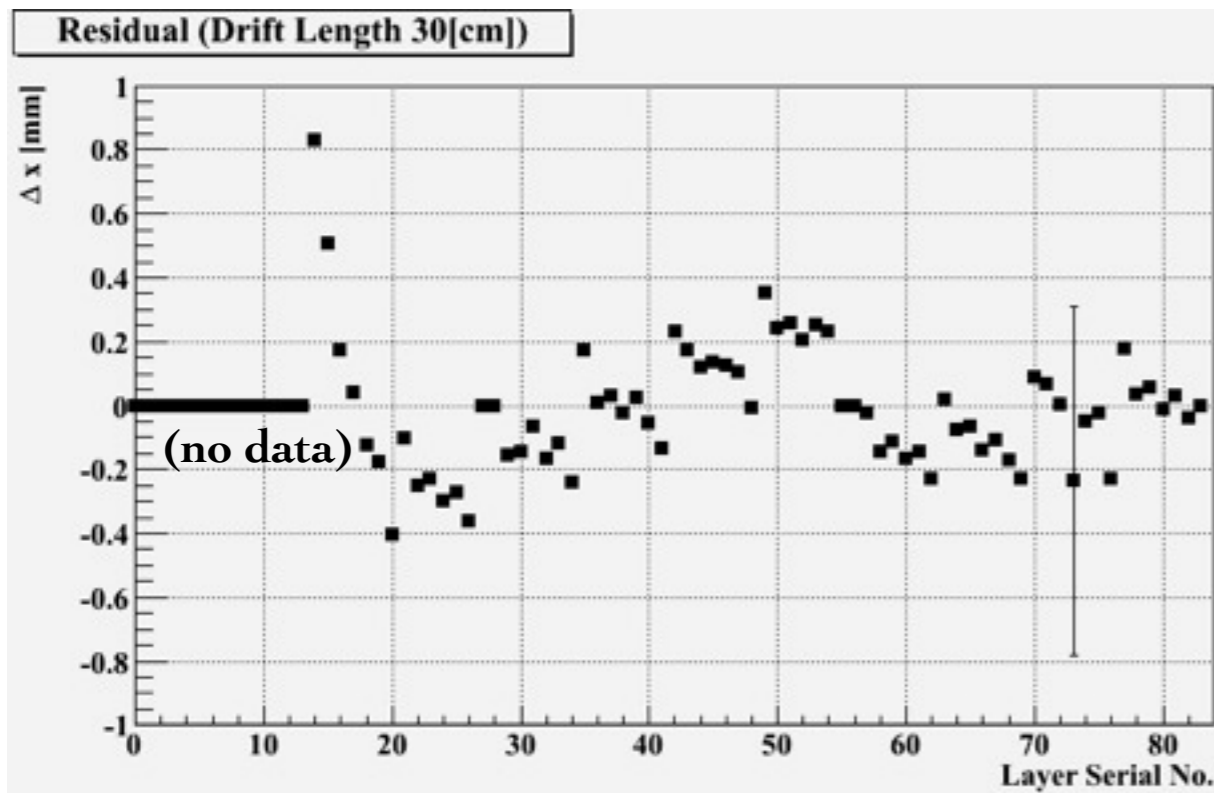
Double-GEM

Pulse shape

z~50 cm, 1T

Pulse Reco. Param.
MinimumPulseHeight 10
MinimumPulseLength 3
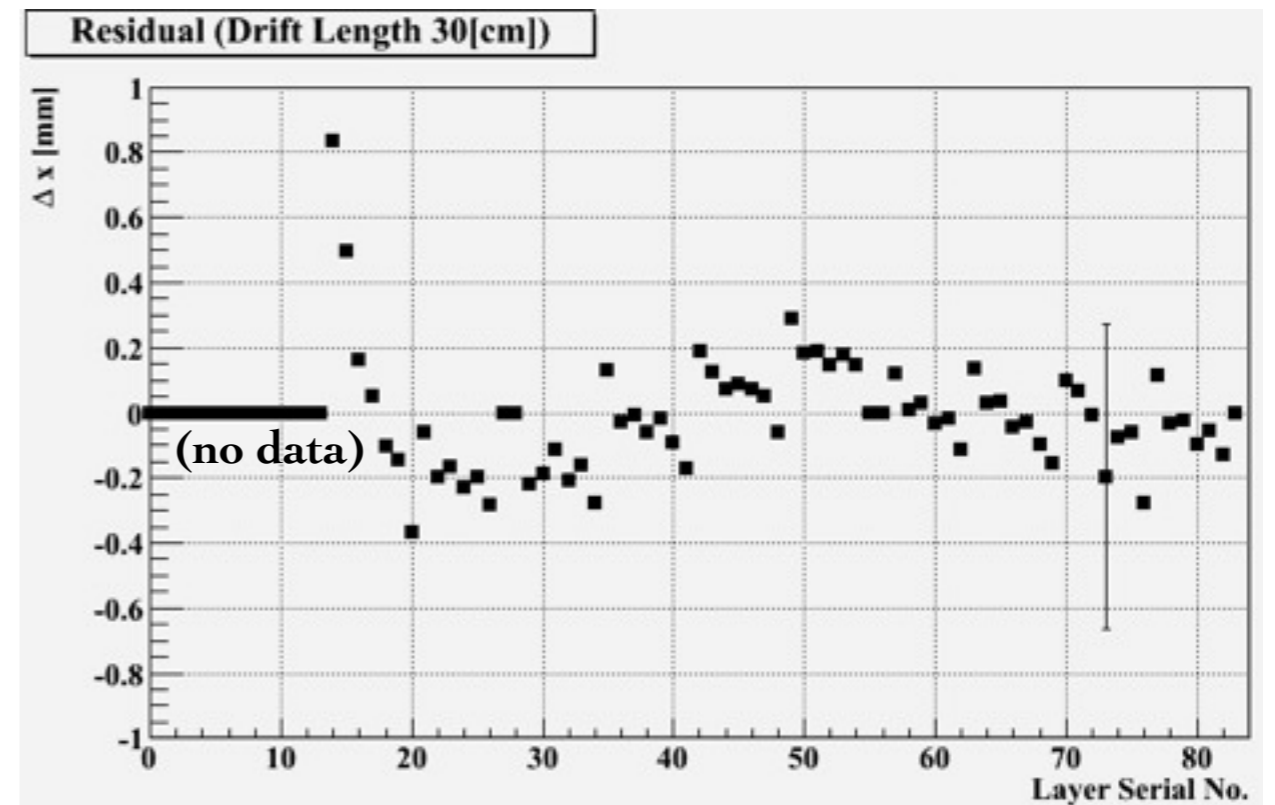PulseStartThreshold 6
PulseEndThreshold 6

Gear (GEM)

Pad plane measurement by an engineering company
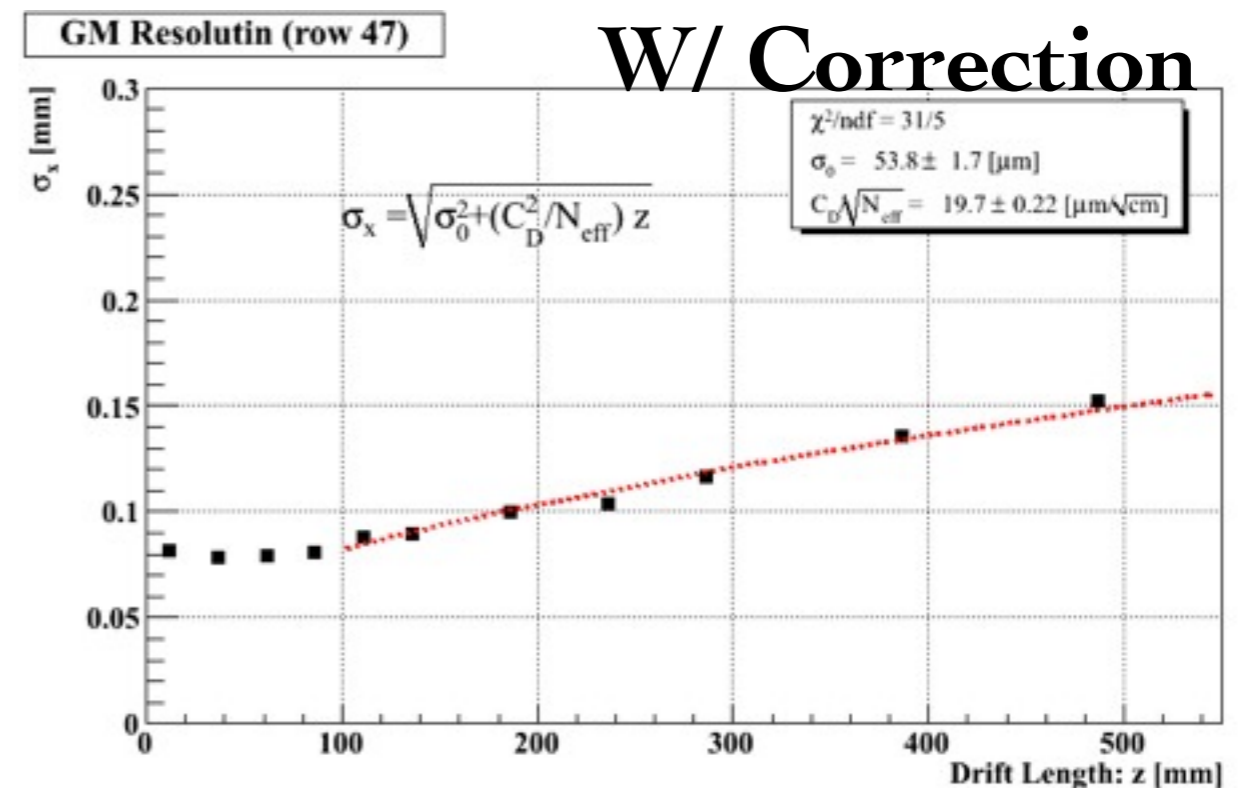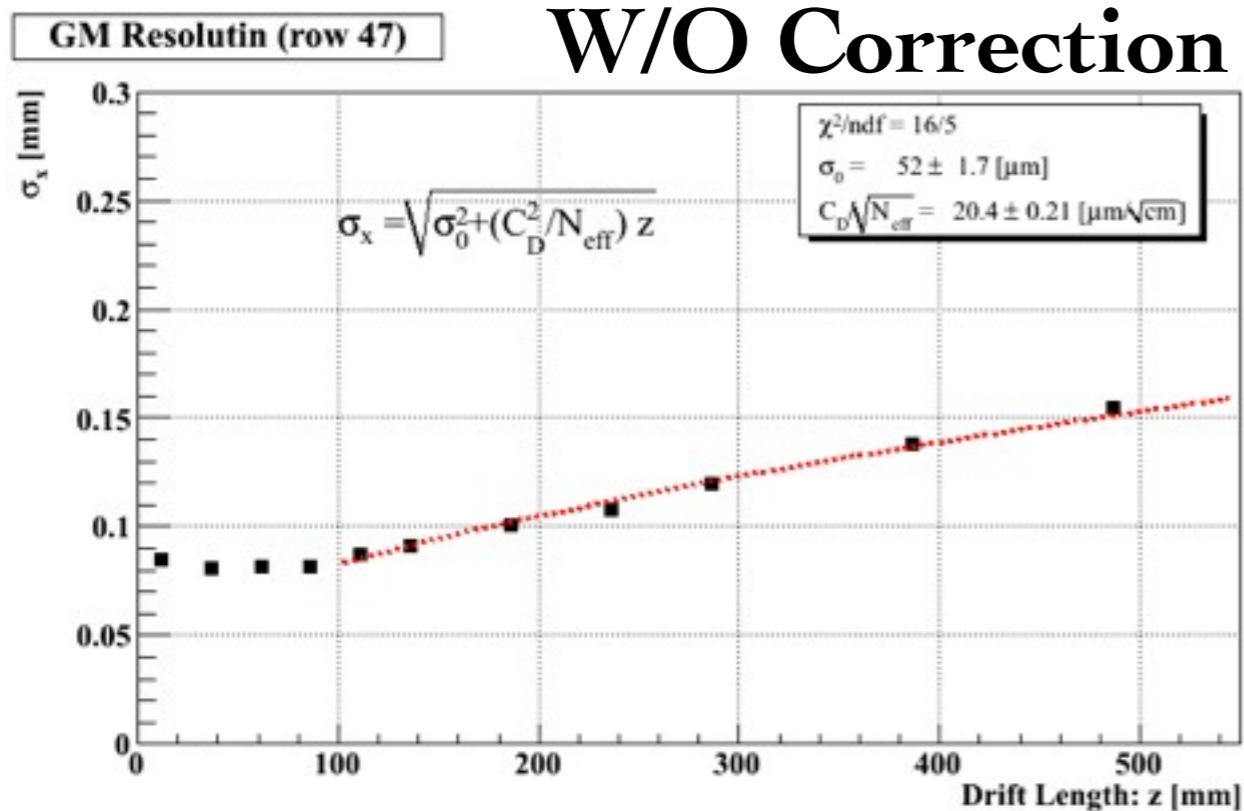
Residual distribution

Current gear

New test version

Test version looks a bit better.

Dead/noisy channels (GEM)

The hits include dead/noisy channels are simply removed using "hitflag" in Marlin framework.

Spatial resolution

W/O Correction

W/ Correction

Plan

❖ Hit Efficiency

Previous resolution was probably biased by too tight cut (momentum cut).
--> Hit efficiency should be checked.

❖ Gear

Continue to check the new gear.