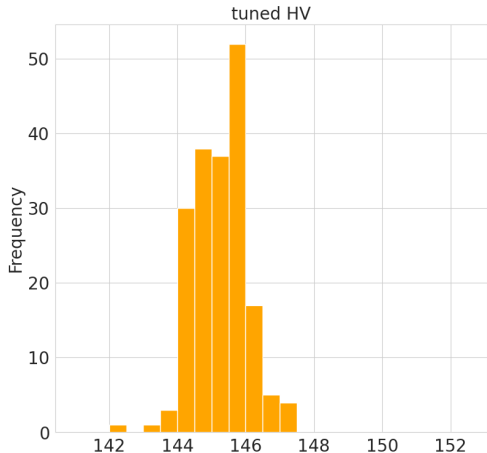
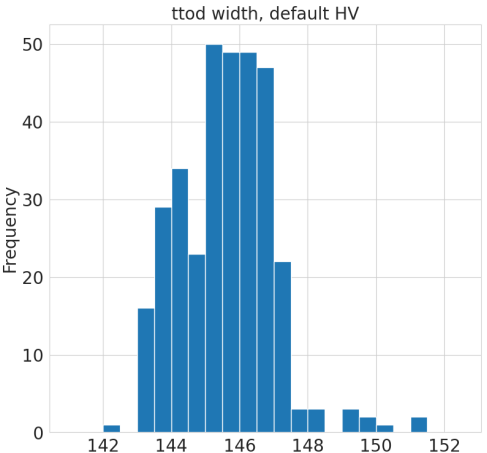


GlueX 2023 RoboCDC analysis

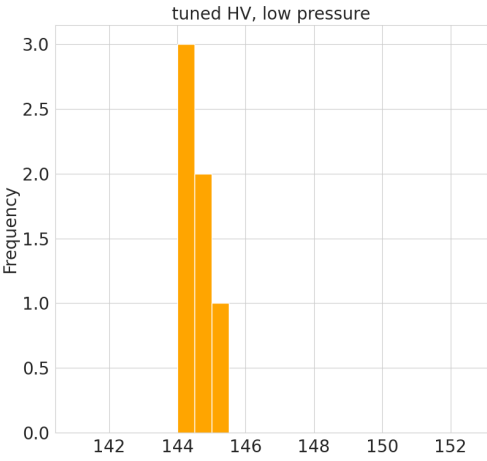
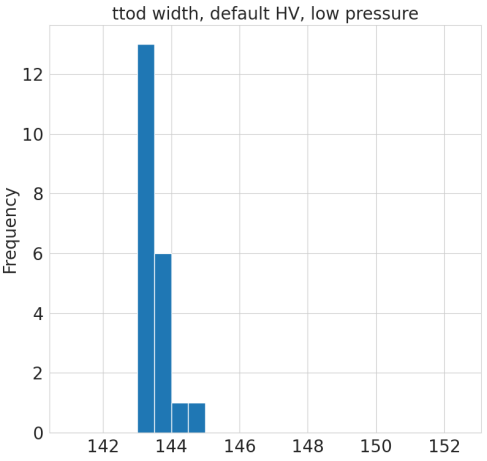
Naomi Jarvis, 12 Oct 2023

Time to distance residual width

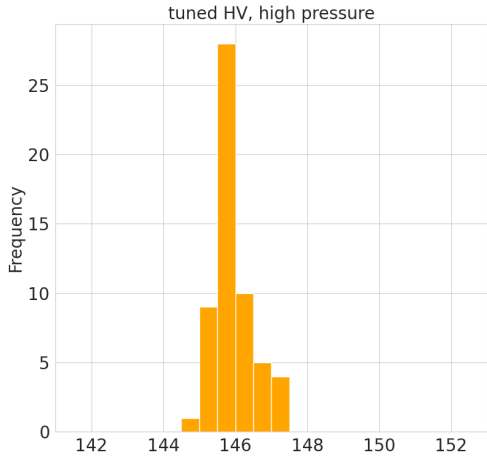
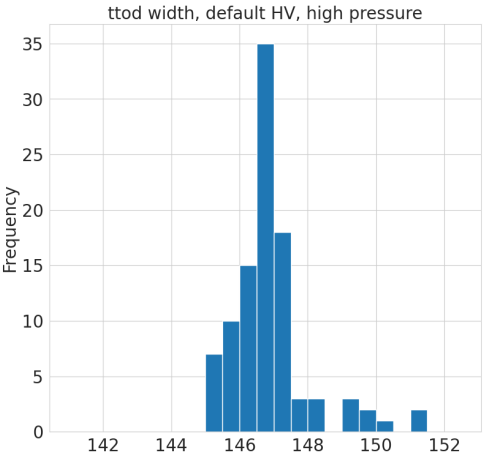
Before calibration -
same ttod parameter values
used for all runs



all runs



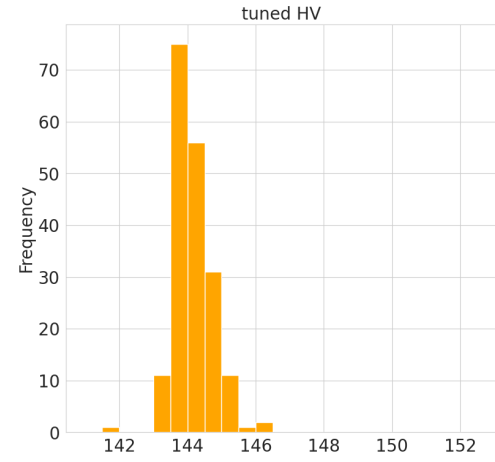
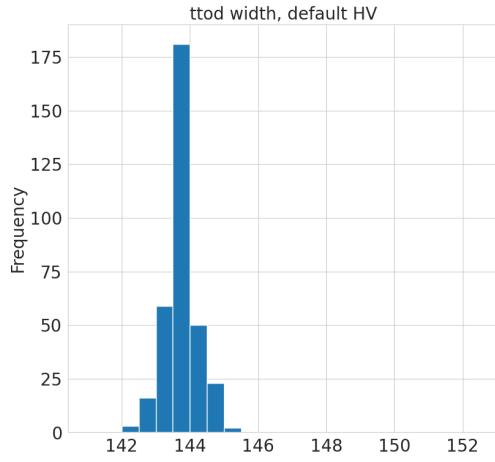
runs below 99 kPa



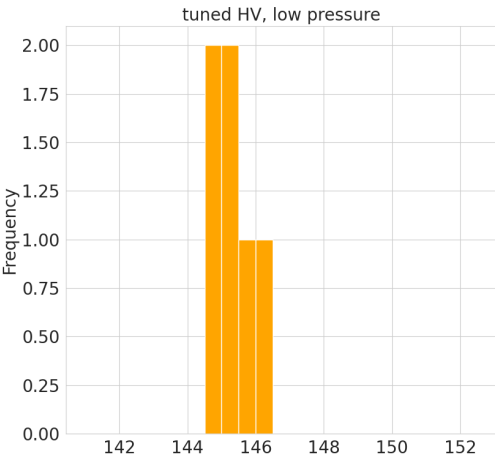
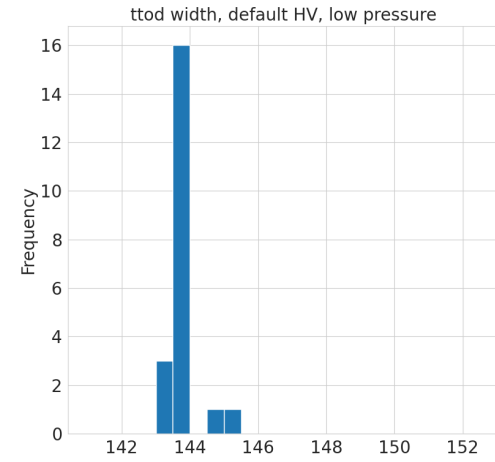
runs above 101 kPa

Time to distance residual width

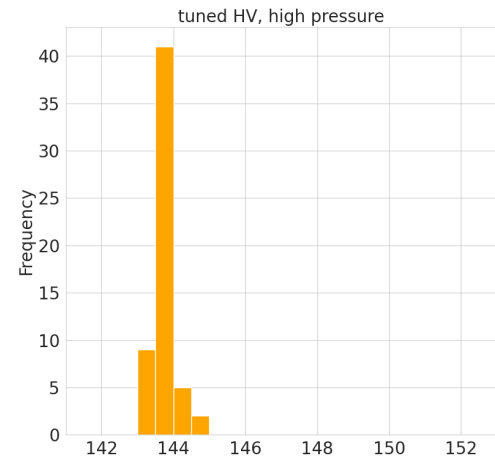
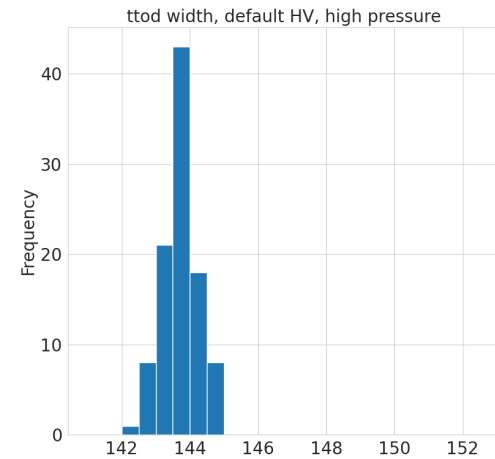
Default calibration -
ttod parameter values
obtained from functions of P/T



all runs



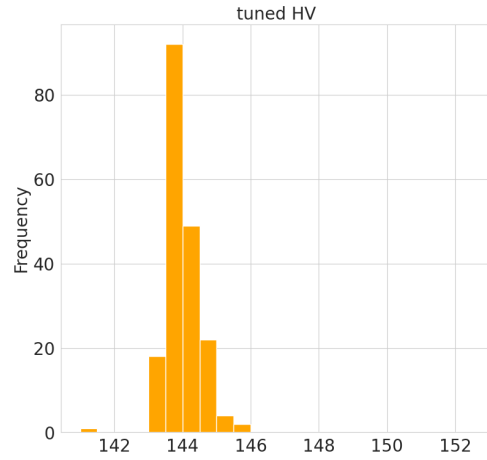
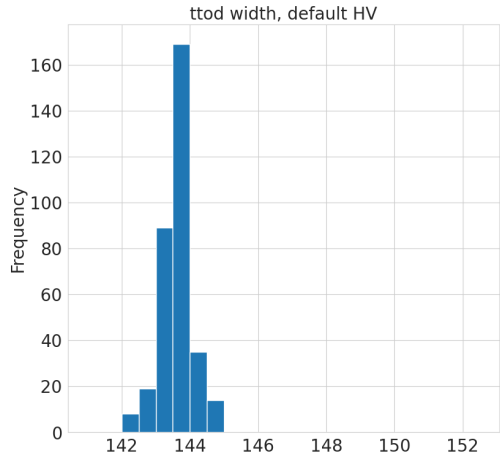
runs below 99 kPa



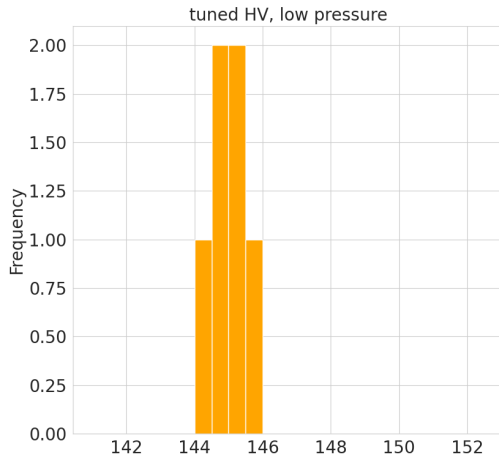
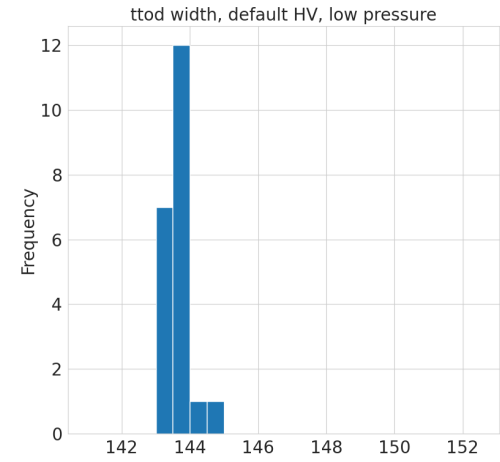
runs above 101 kPa

Time to distance residual width

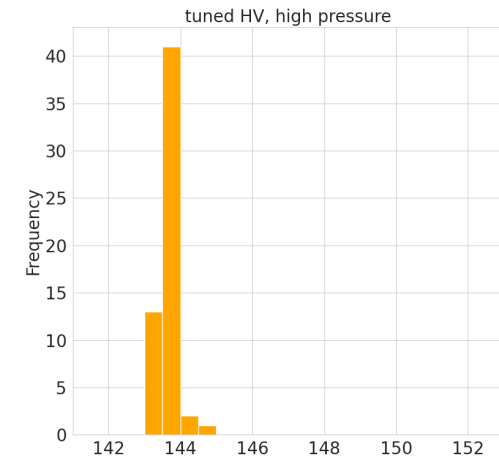
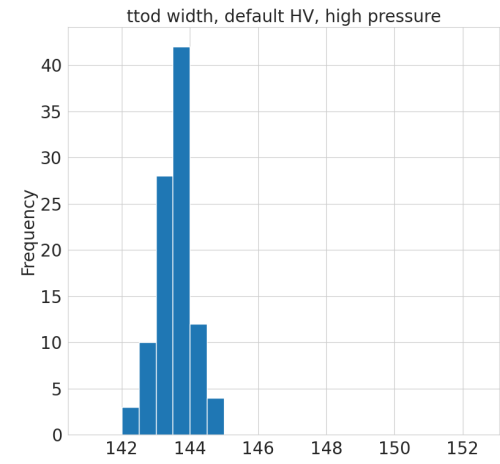
After 1 calibration round -
ttod parameter values
extracted from fits to histograms
obtained from track reconstruction
using P/T values



all runs

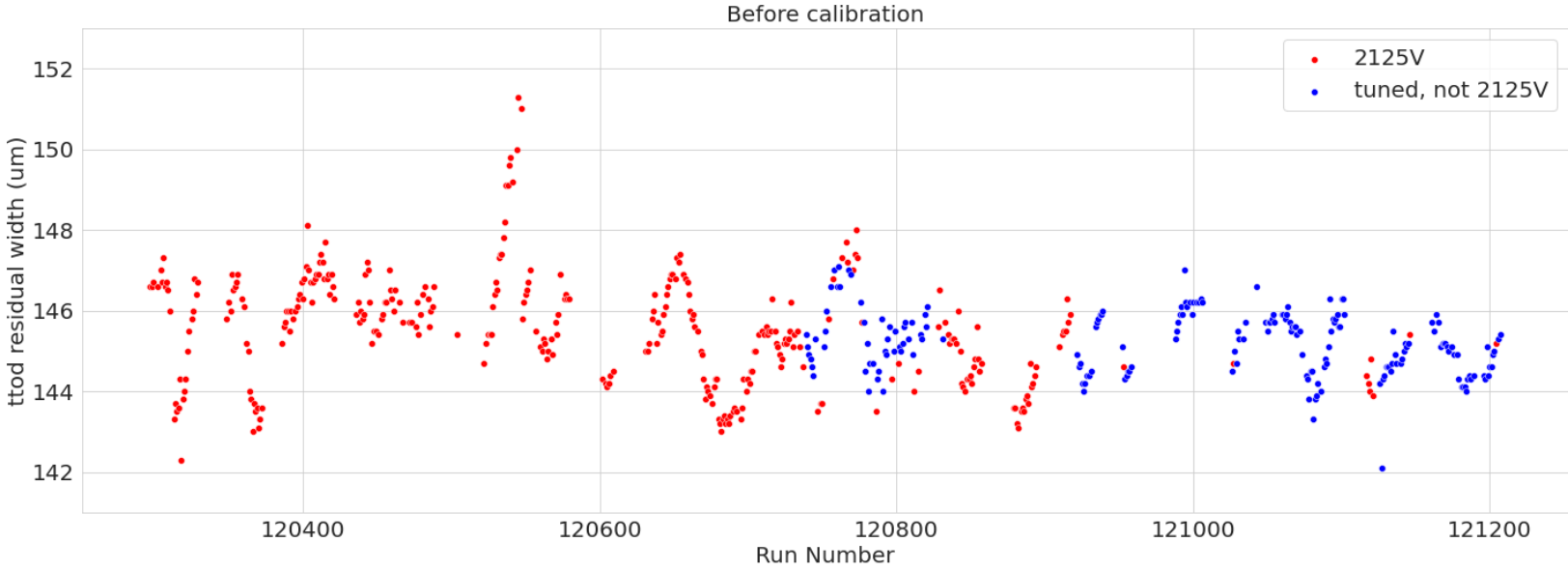


runs below 99 kPa

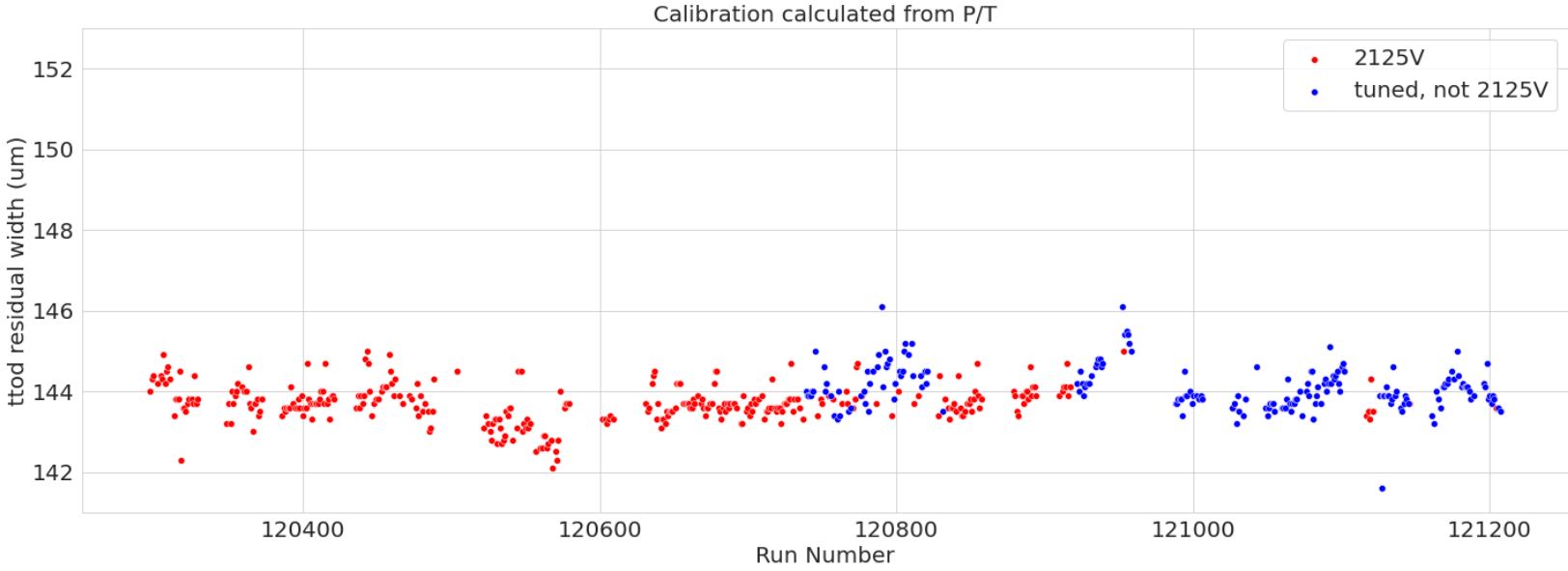


runs above 101 kPa

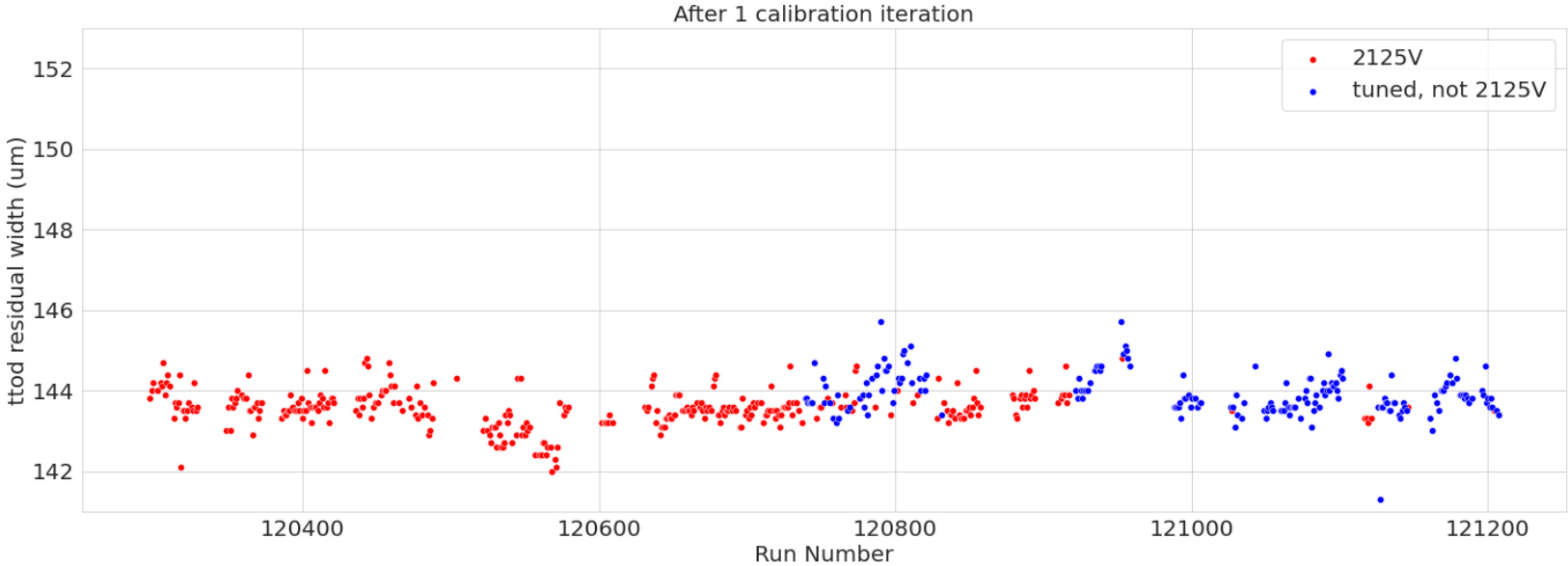
Time to distance residual width - uncalibrated



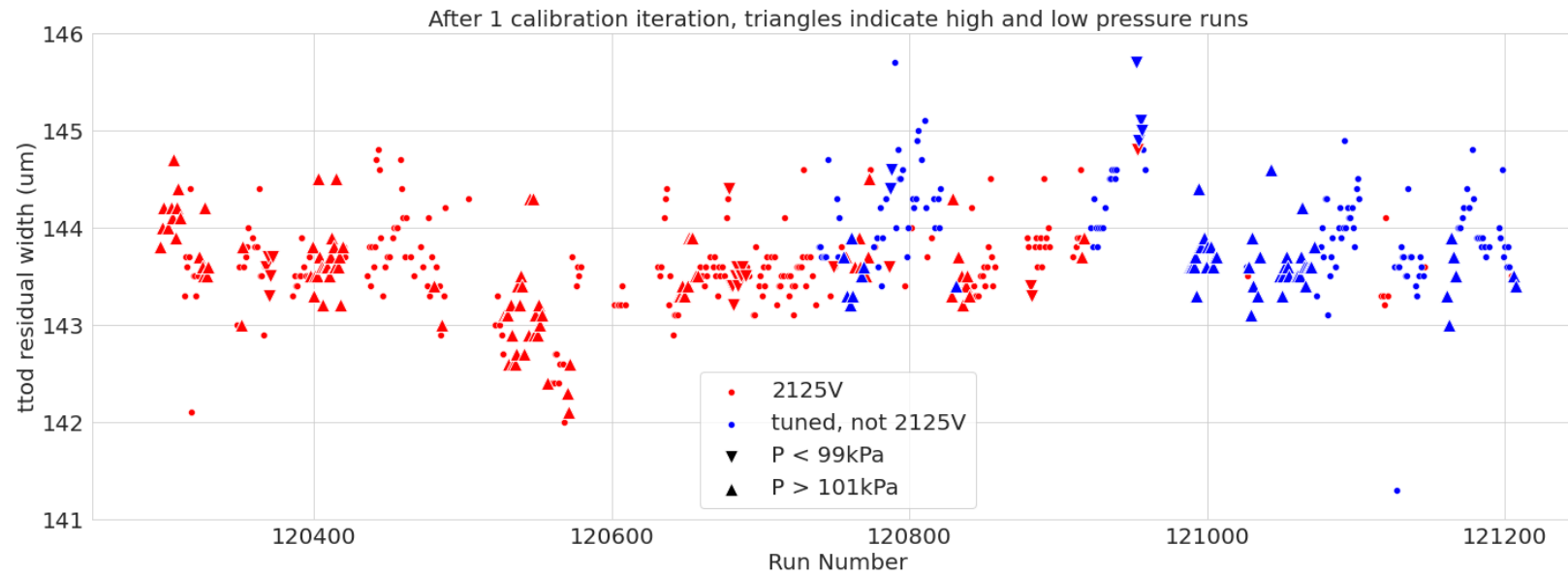
Time to distance residual width – default calibration



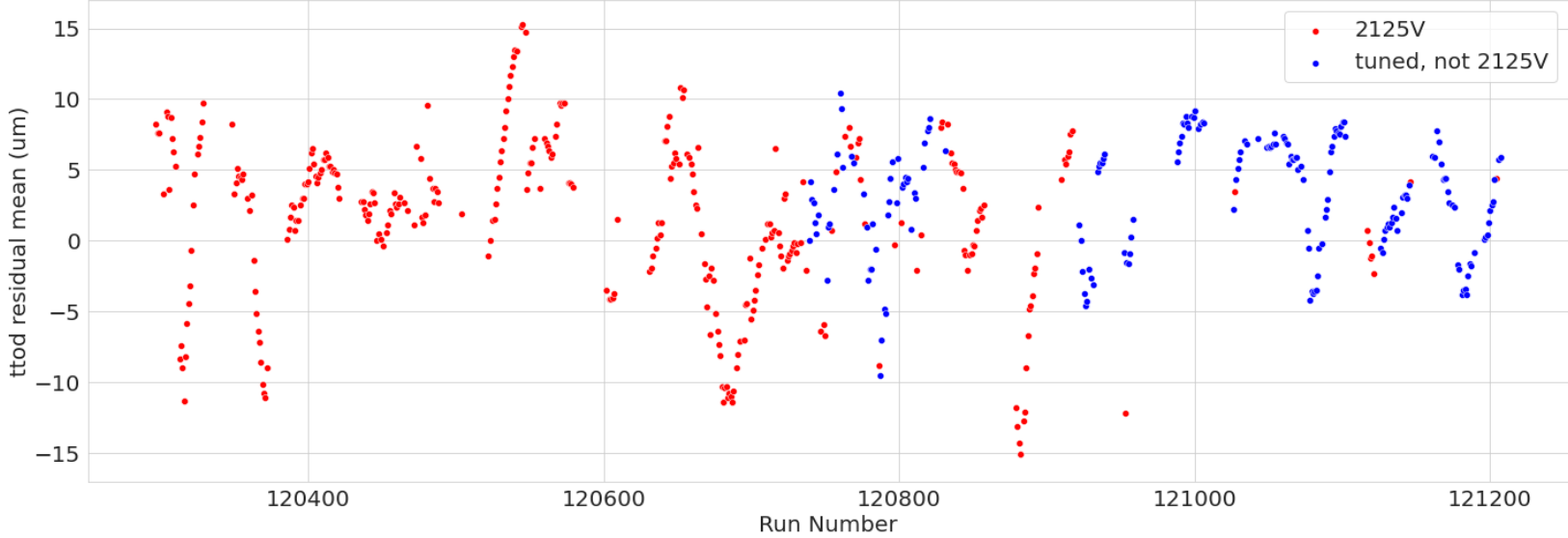
Time to distance residual width - calibrated



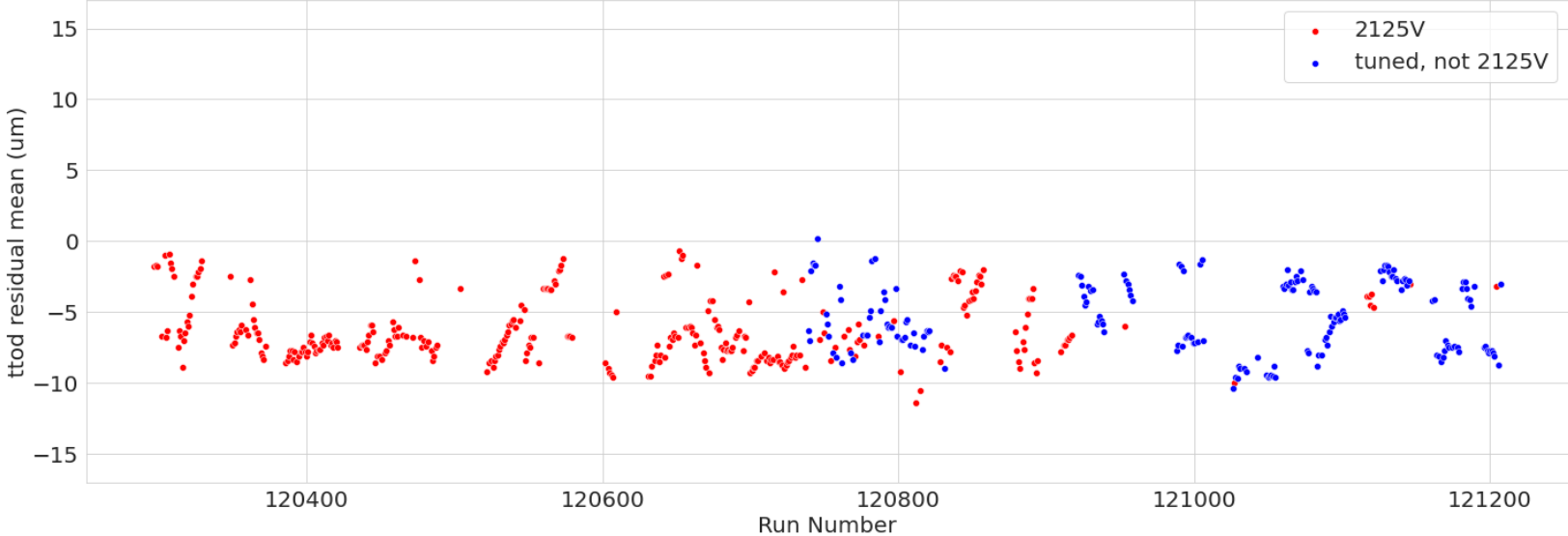
Zoom in and look to see if outliers are at pressure extremes



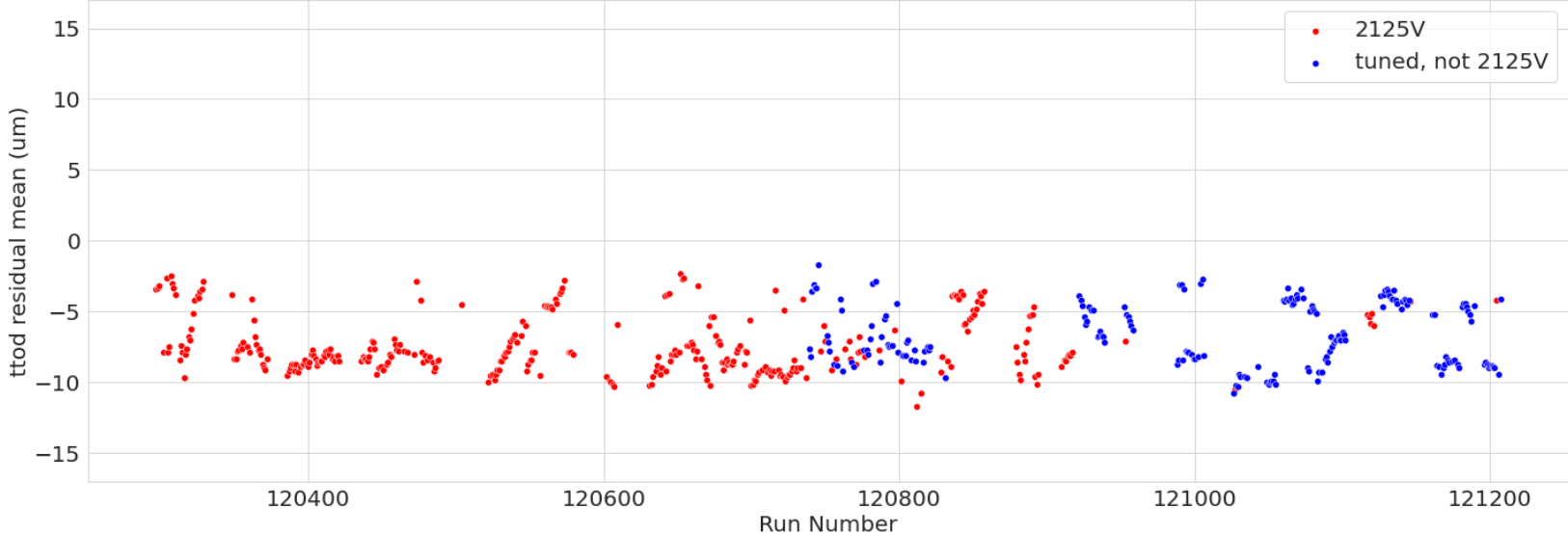
Time to distance residual mean - uncalibrated



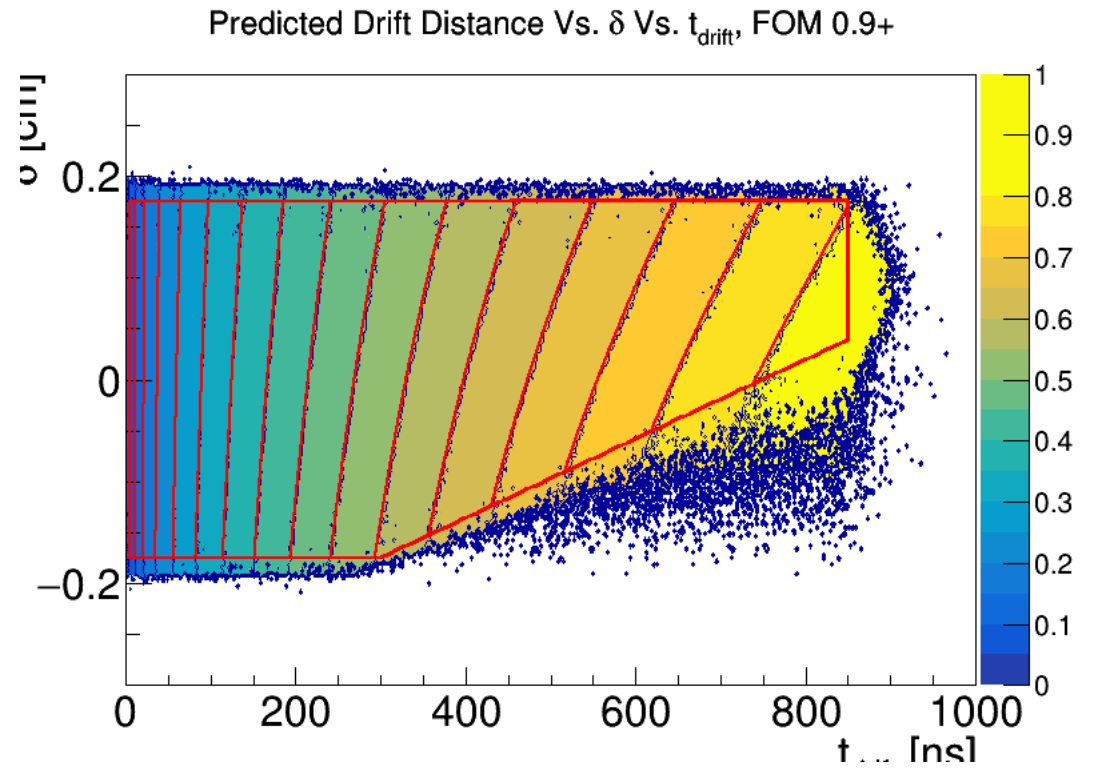
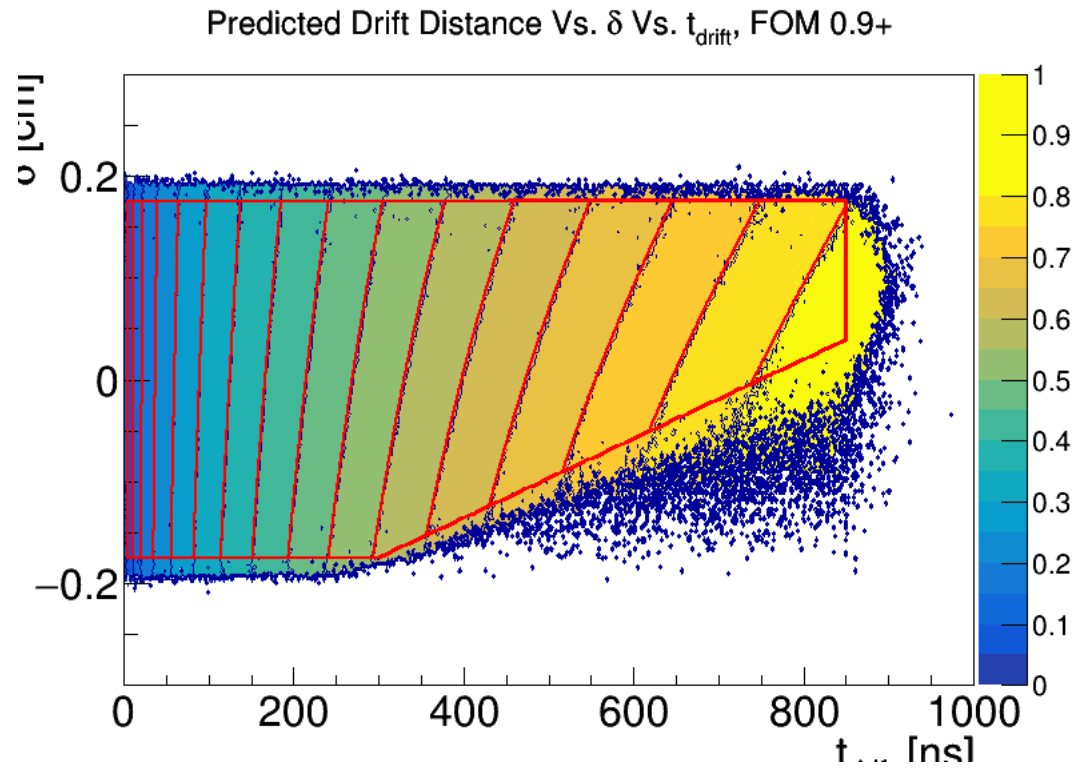
Time to distance residual mean – default calibration



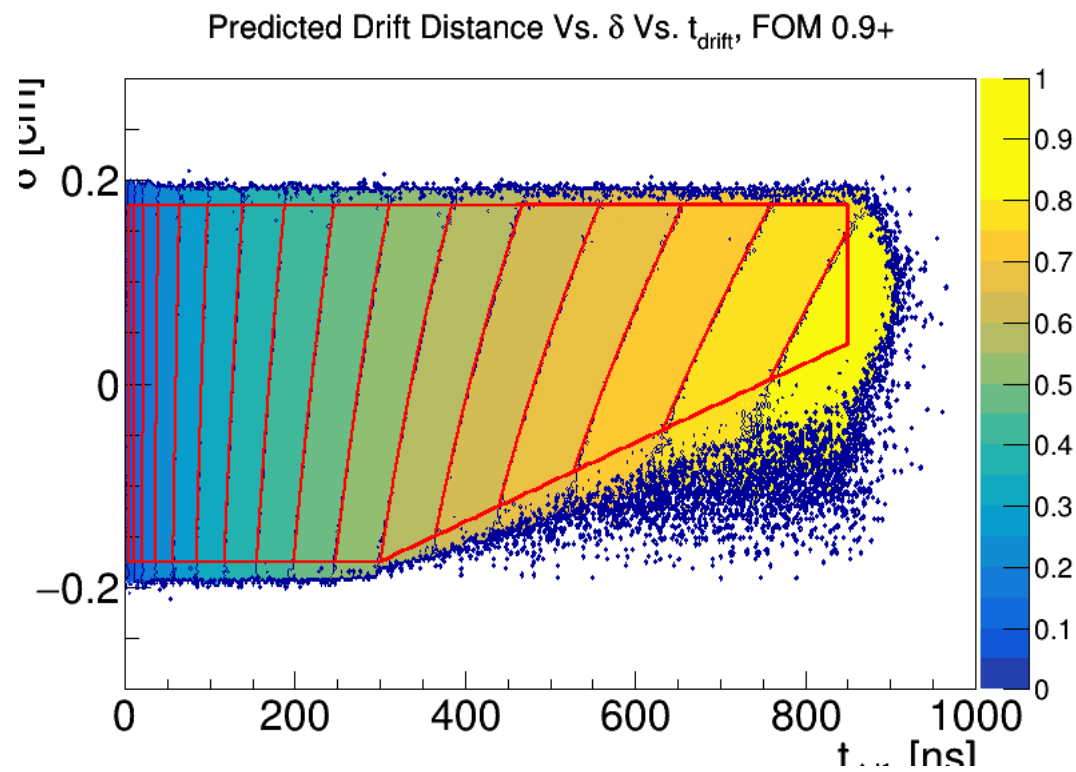
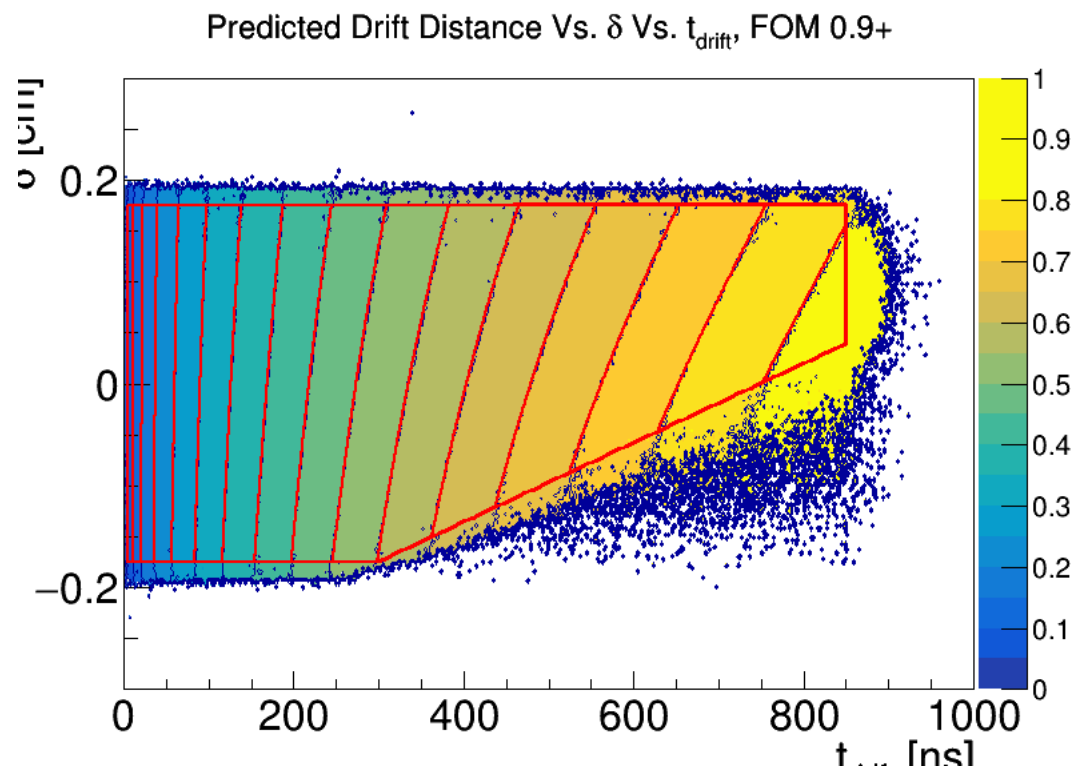
Time to distance residual mean - calibrated



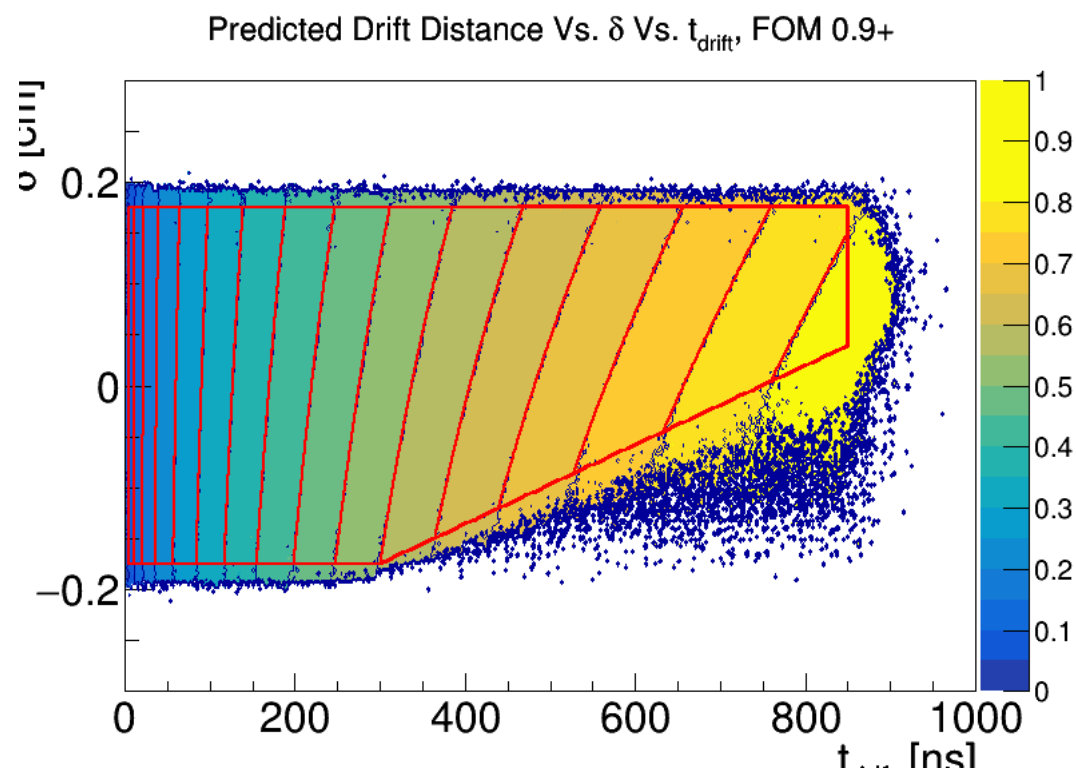
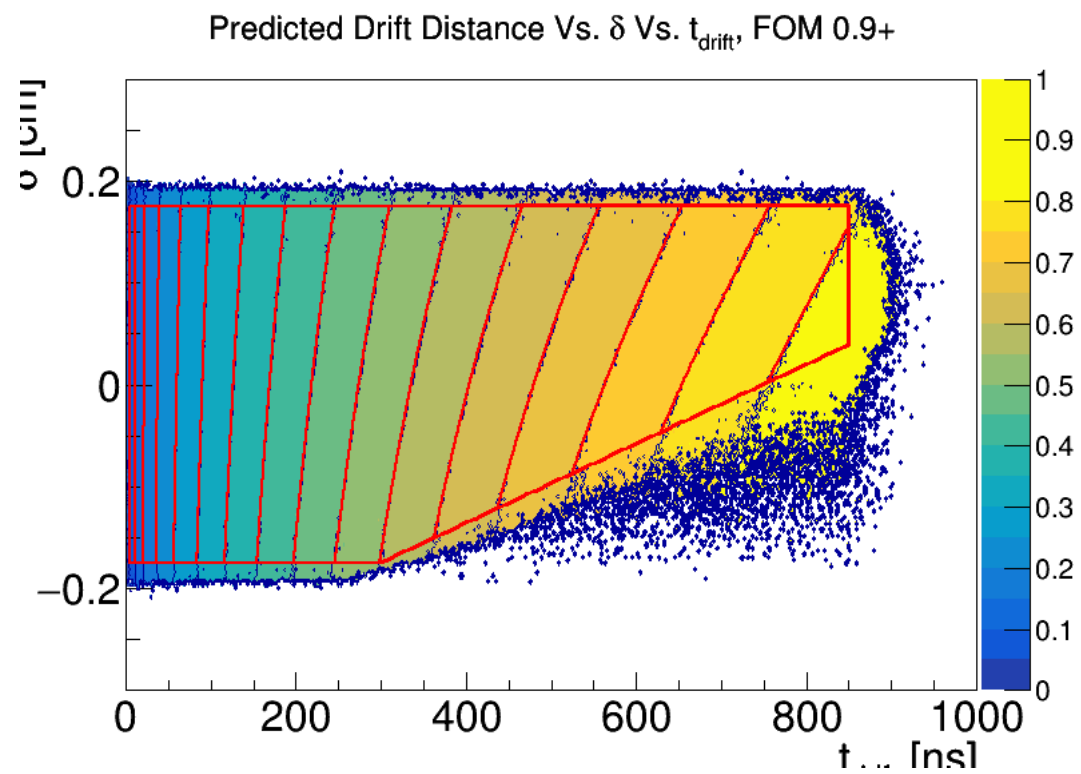
Time to distance residuals – uncalibrated – two runs at 101.6 kPa, left: untuned 120302, right: tuned 120758



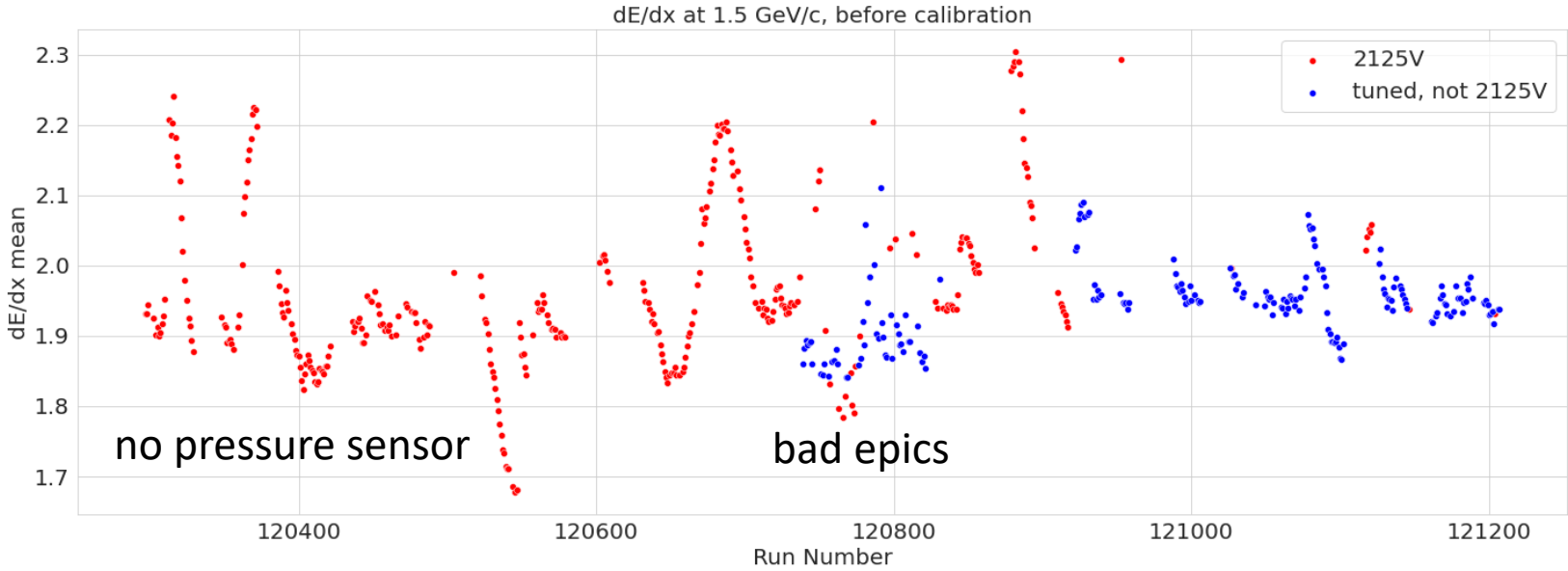
Time to distance residuals – default calibration for two runs at 101.6 kPa, left: untuned 120302, right: tuned 120758



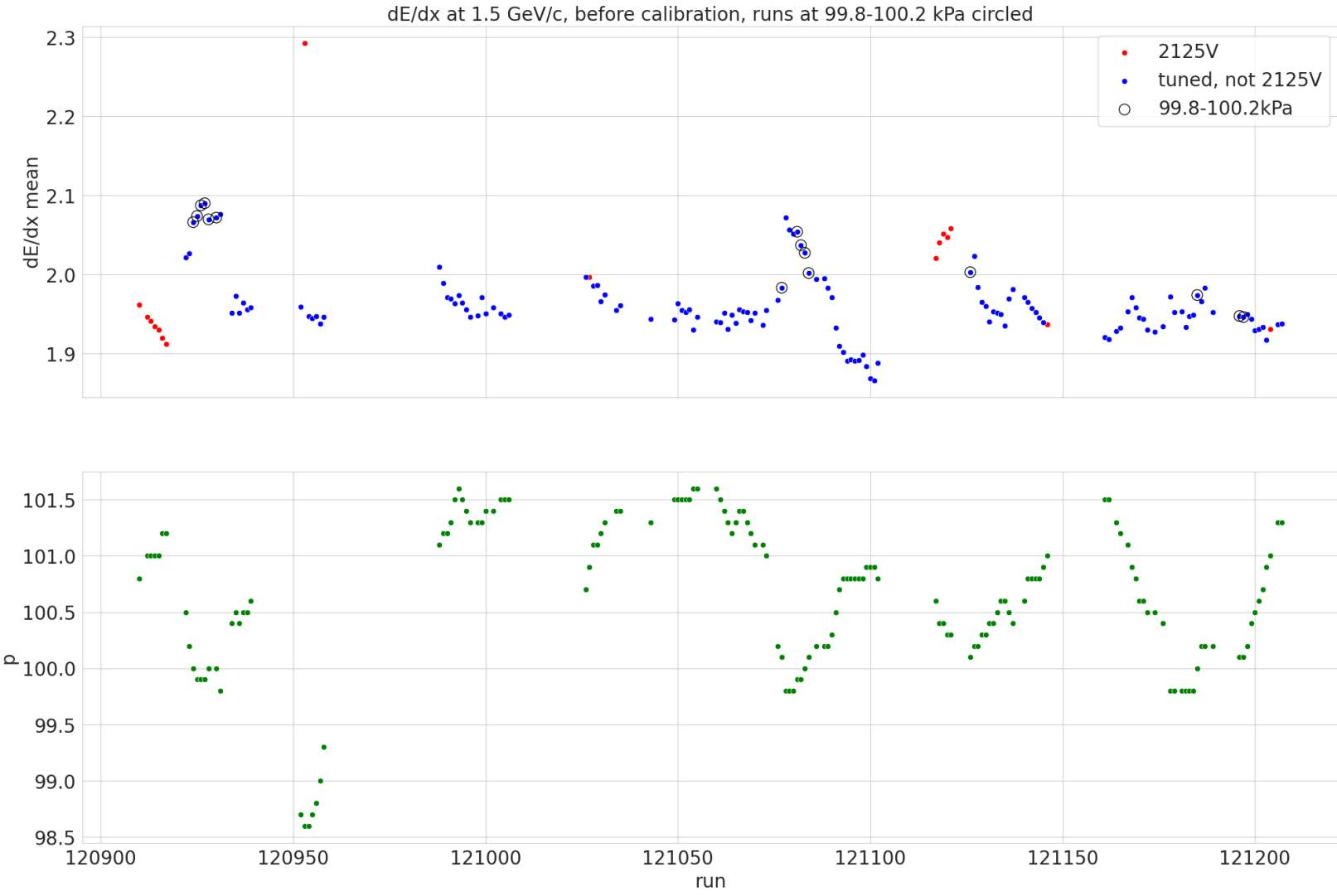
Time to distance residuals – fitted calibration for two runs at 101.6 kPa, left: untuned 120302, right: tuned 120758



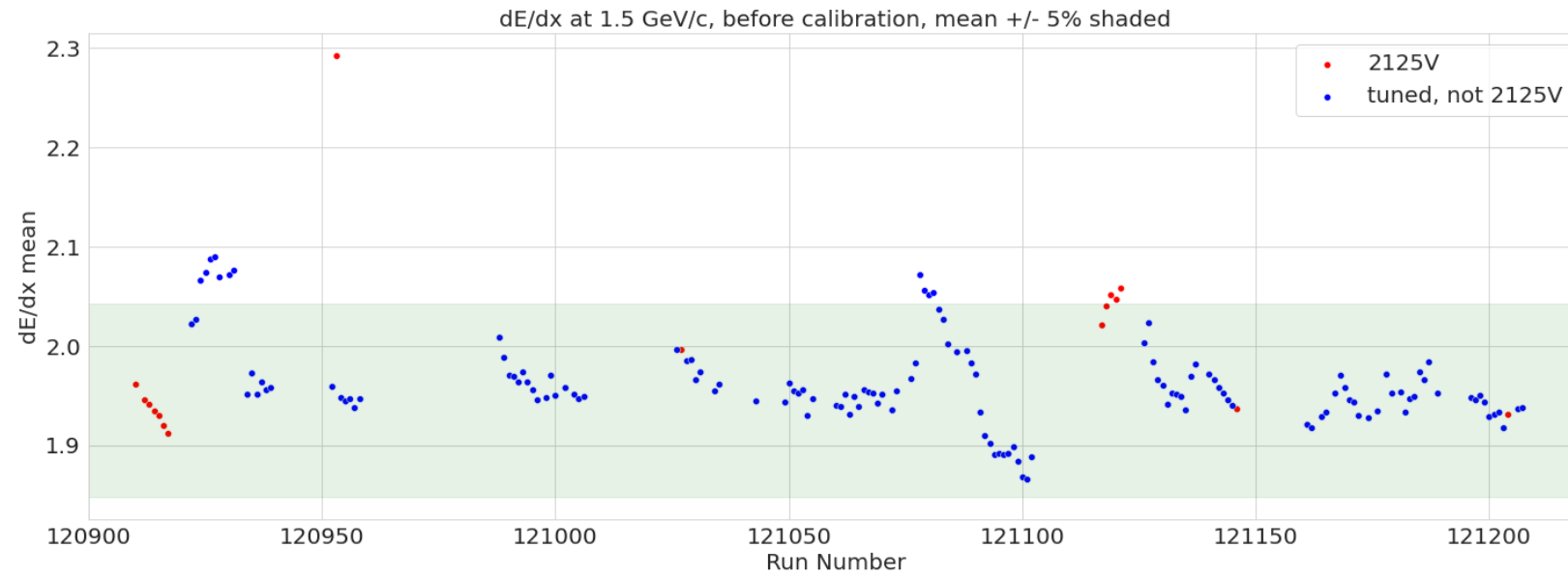
dE/dx mean at 1.5 GeV/c – uncalibrated



zoom in on later runs, runs close to 100kPa circled



zoom in on later runs



correlation plots
for tuned runs
after 120900

