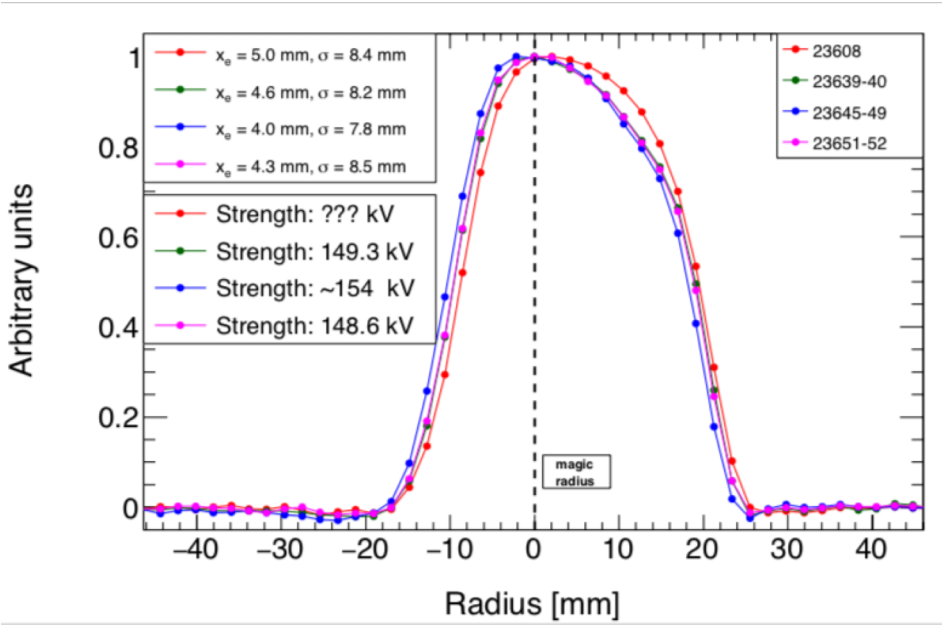
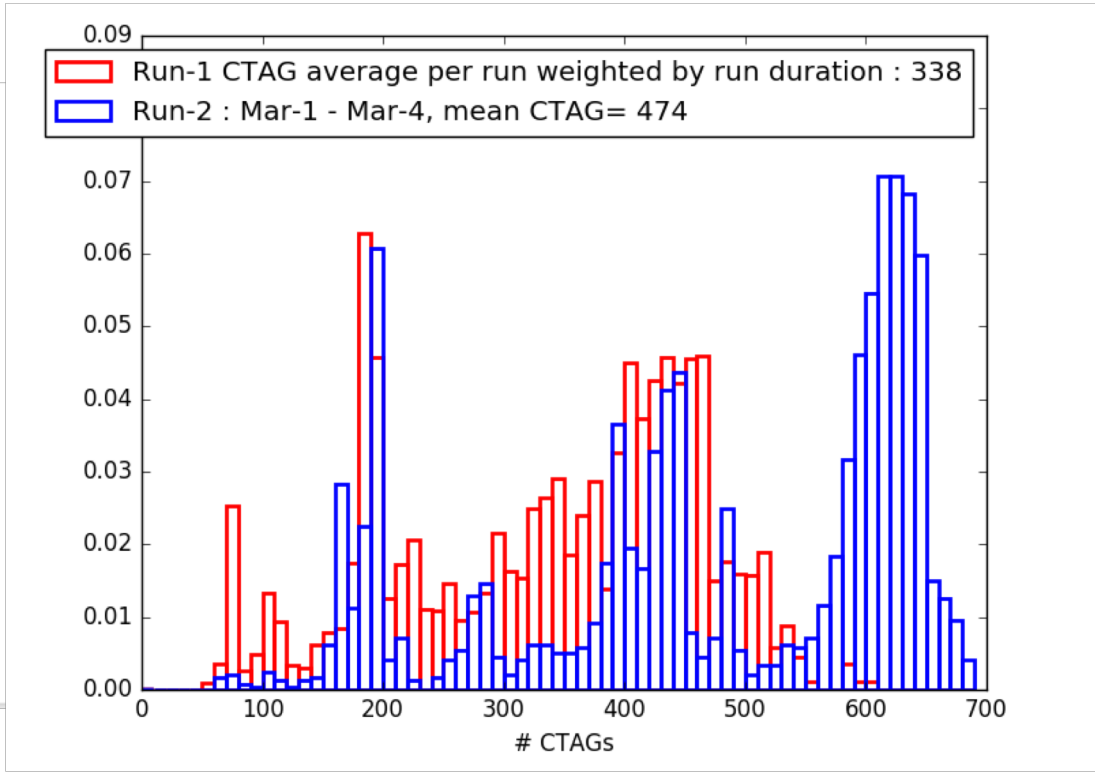
WP1 : g-2 Detectors

Data taking resumed last weekend (Mar 1) after a long schedule of repairs and upgrades.
The aim of the repairs and upgrades was to:

- increase the e+ flux by 50%
- move the beam inwards by 6mm (inwards) to be on the “magic radius” which minimizes the systematics due to the momentum and position variance.
- improve reliability



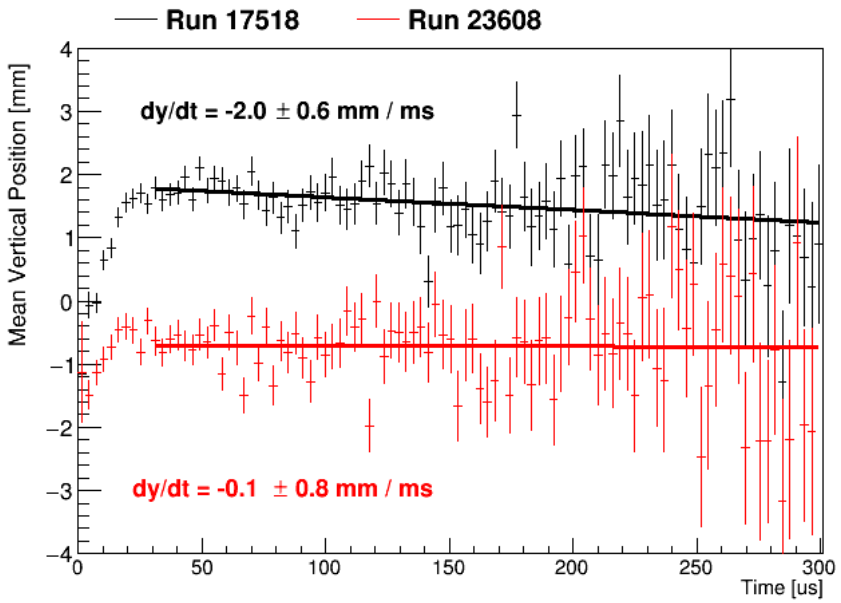
Beam profile with different strength “kicks” showing the beam getting closer to the magic radius

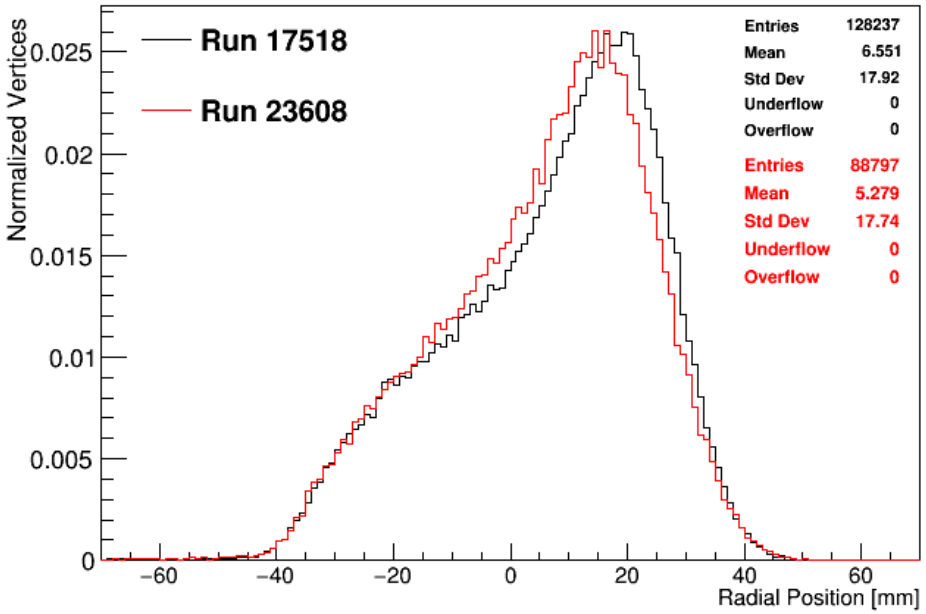


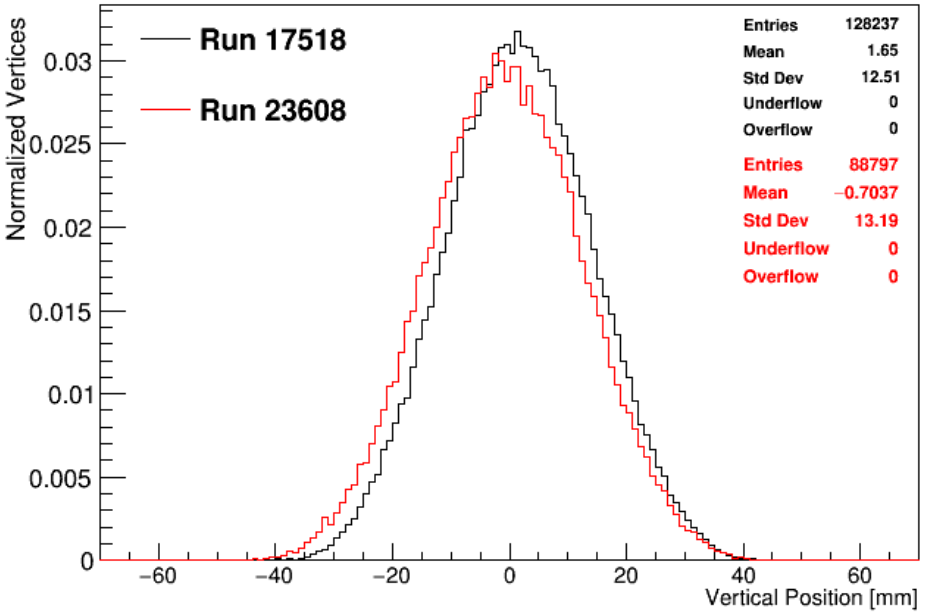
Flux increase of approx. 50%

WP1 : g-2 Detectors

Tracking detectors also show improved/reduced radius of beam with the higher kicks and also that there is no vertical drift over the fill as was the case in run-1 due to a failed quad resistor.



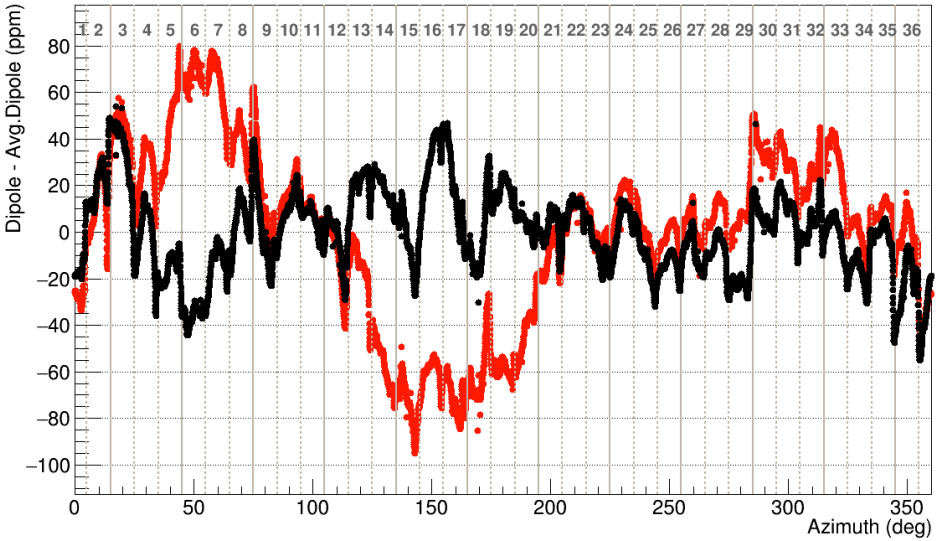


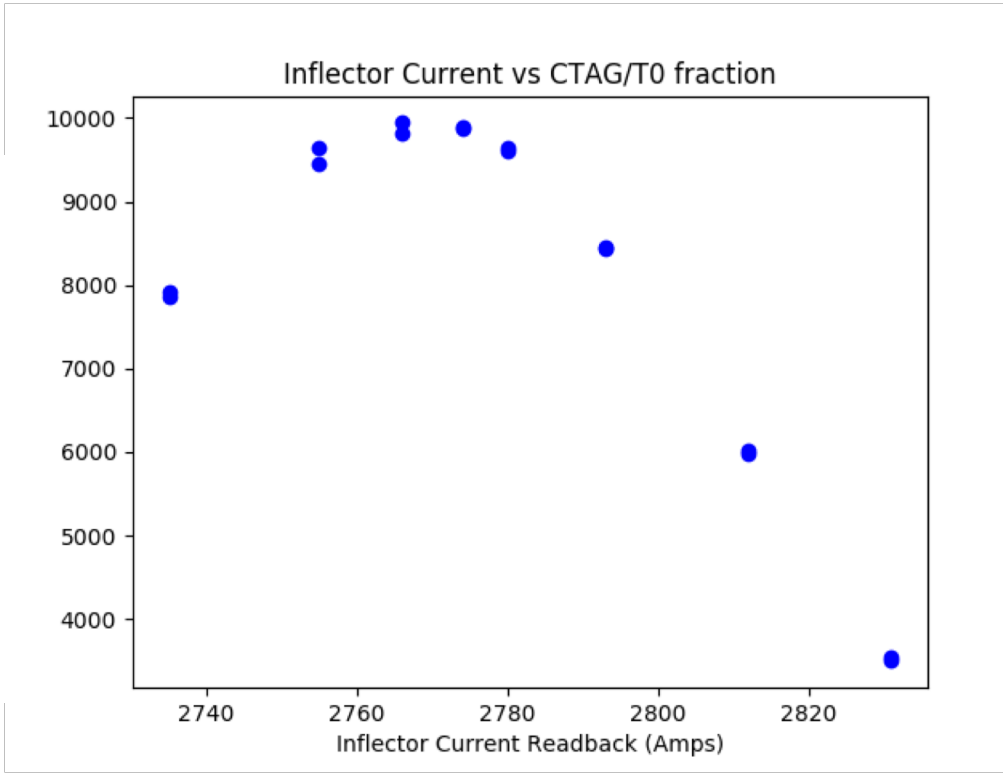


WP1 : g-2 Detectors

The uniformity of the magnetic field (black) has been improved (vs red) and is now at a RMS slightly better than run-1.

The first round of flux optimisations has also begun e.g. optimizing the inflector current.

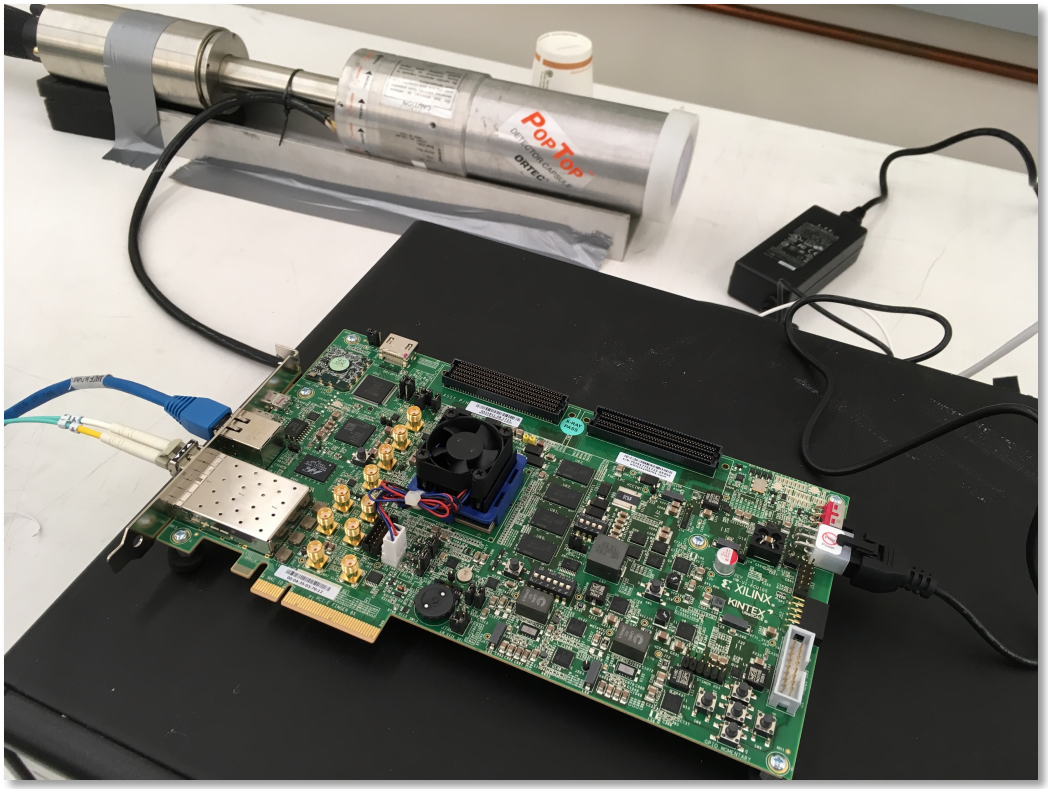




WP2 : Mu2e Detectors

Milestone-3 : Installation of MU2e HPGe detector : 01/01/2020

Integration of the STM DAQ with the Mu2e DAQ has begun at FCC in FNAL.



HPGe detector will be delivered to Liverpool later this month and undergo initial characterization there before being shipped to FNAL for commissioning in Lab-3.