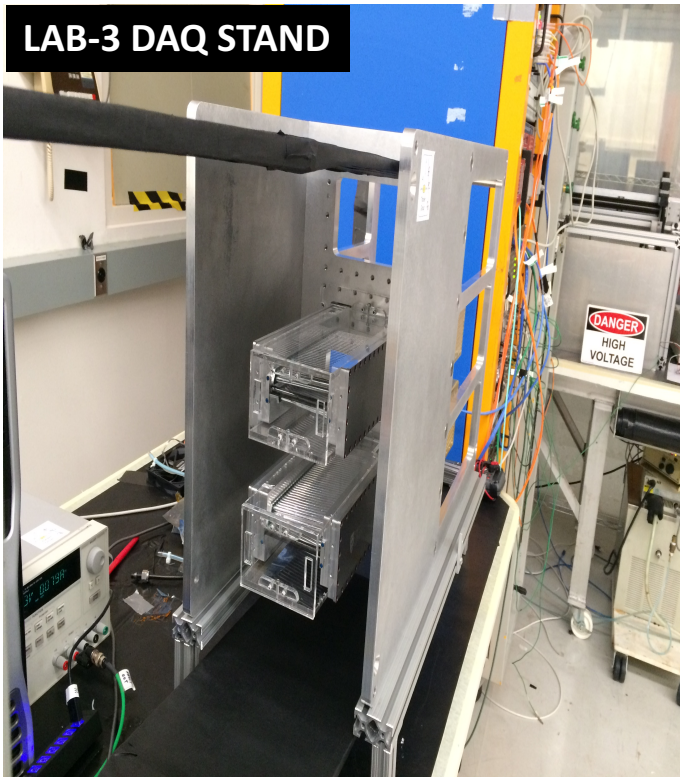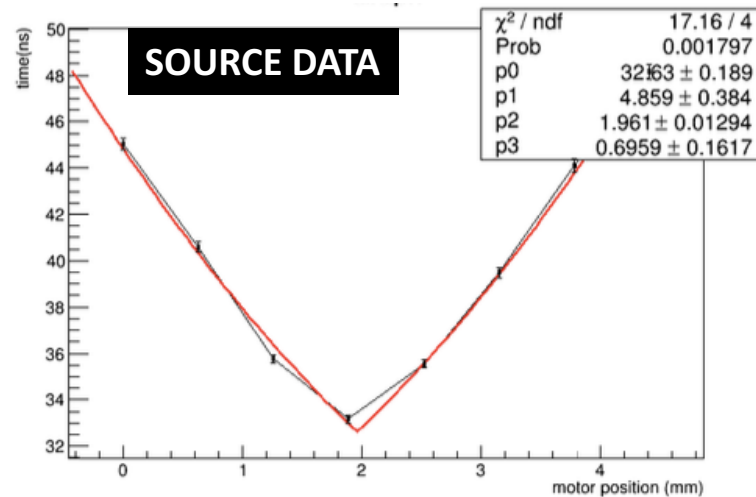# WP1 : g-2 Detectors

Milestone-1 : Tracker DAQ Integration : 01/06/2017
Deliverable 1.2: Report on installation and initial commissioning of g-2 trackers

Tracker DAQ software/hardware is essentially complete.
We have instrumented tracker rack & servers now in MC-1
We are doing the integration of the tracker DAQ with the calo-DAQ and clock/control system next week @ FNAL.

Experiment expects to have first freeze of DAQ on April-3 : screenshots etc
- these can be used to demonstrate the completion of the milestone.

LAB-3 DAQ STAND

SOURCE DATA

χ² / ndf	17.16 / 4
Prob	0.001797
p0	32.63 ± 0.189
p1	4.859 ± 0.384
p2	1.961 ± 0.01294
p3	0.6959 ± 0.1617

WP1 : g-2 Detectors

Now have 4 trackers at FNAL: 3 will go into ring next week to check the level
of noise induced when the kickers fire.

TRACKER IN RING

Expect to have one full instrumented station (8 trackers) for the
June commissioning data taking and the other two stations for the
first physics run in November.

WP2 : Mu2e Detectors

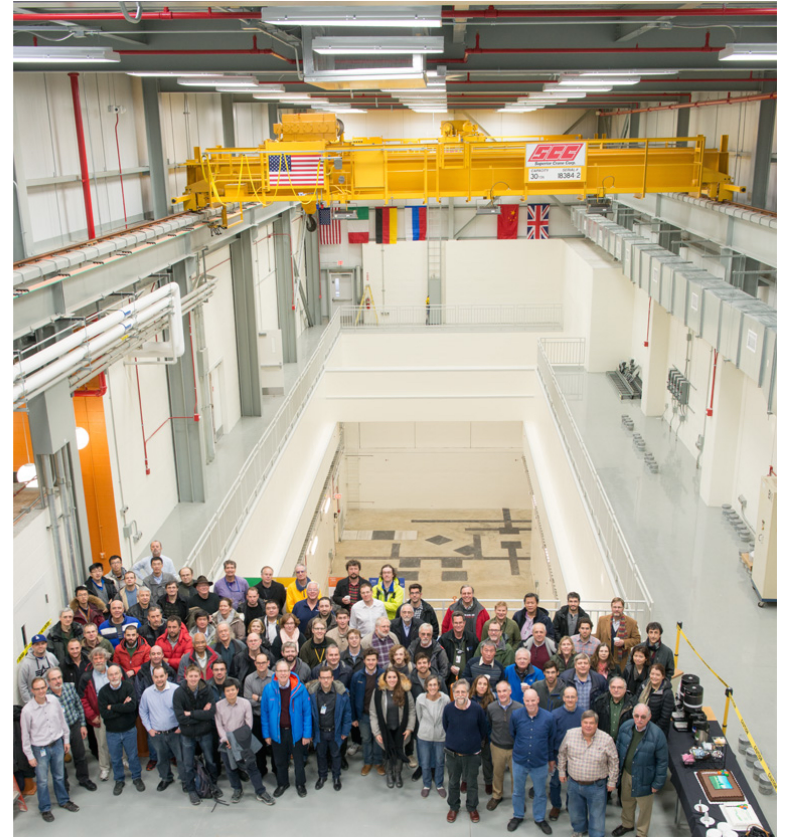Milestone-3 : Installation of MU2e HPGe detector : 01/01/2020
Deliverable 2.3: Design of Mu2e HPGe detector : 01/04/2018

Funding review in UK now complete : expect announcement of award in next few weeks.

UK formally joined the Mu2e collaboration at the February CM

We've been discussing with Anna to have a rate/radiation beamtest at HZDR for the HPGe STM : we will visit HZDR in March.

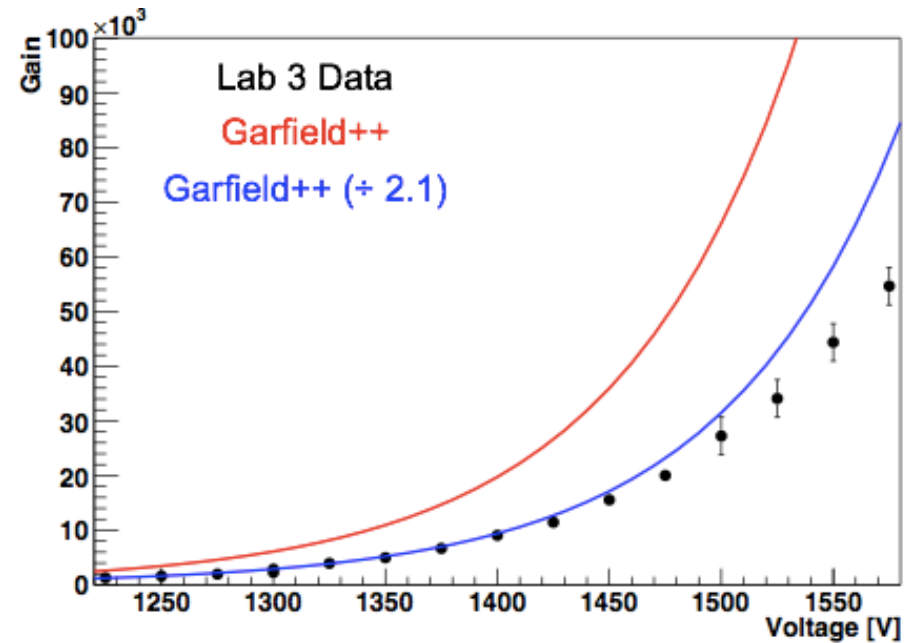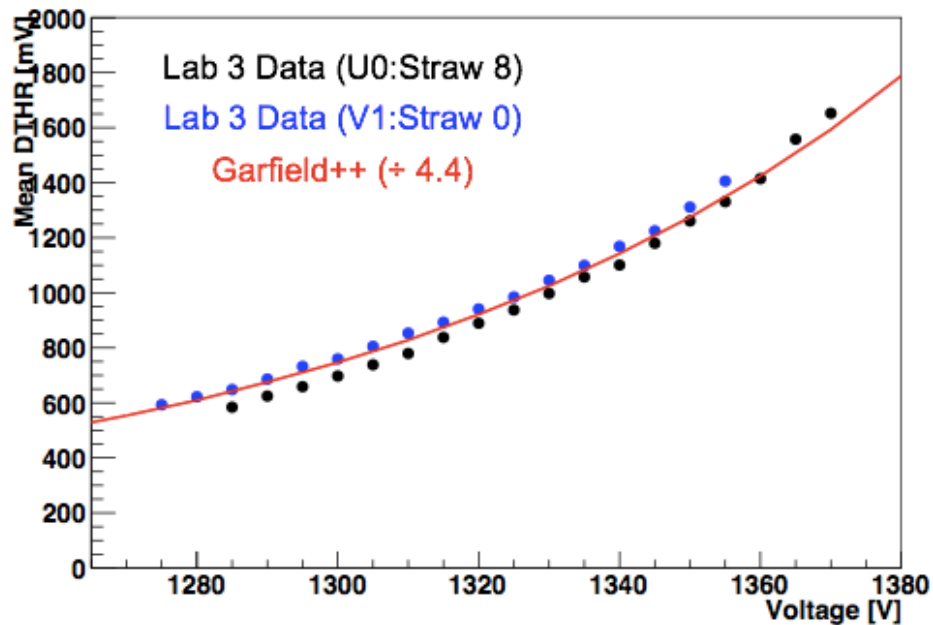Design of detector proceeding to schedule. Expect to procure at then end of 2017.

WP3 : Calibration Tools (g-2)

Deliverable 3.2: Calibration system for g-2 straw tracker (01/07/2017)
Mielstone 5: g-2 calibration system commissioned (01/01/2019)

Implemented significant changes to Garfield++ : now agrees with deprecated Fortran version
Model of electronics and drift-time & efficiency being developed based on Lab-3 data

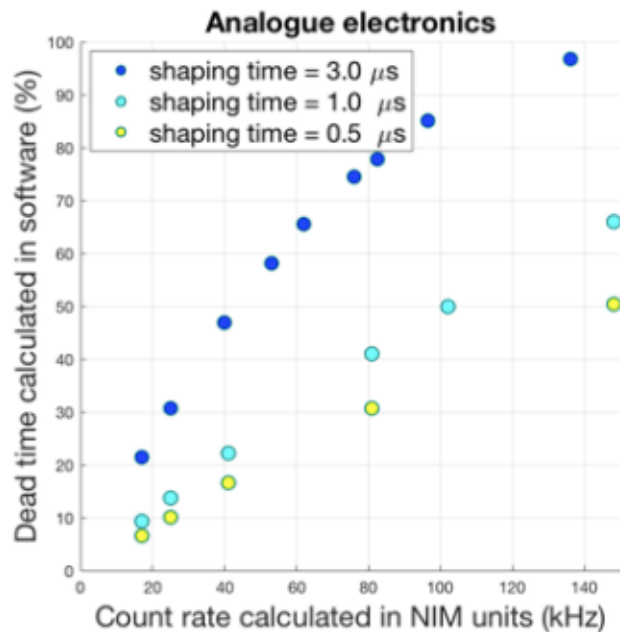Implementing Millipede alignment algorithms

WP4 : Software Tools (g-2)

Milestone-6 : g-2 offline reconstuction code ready for analysis of data : 01/01/2017
Deliverable 4.2: Simulation of 10^{11} muons for g-2 and stress-testing of framework

BOTH OF THESE ARE NOW COMPLETE AND REPORT WAS SUBMITTED IN DECEMBER

Milestone-7 : Mu2e HPGe reconstruction code : 01/05/2019

Begun to implement different pulse fitting algorithms and examining rate/deadtime implications with both analog and digital readout/processing.