

Muon g-2

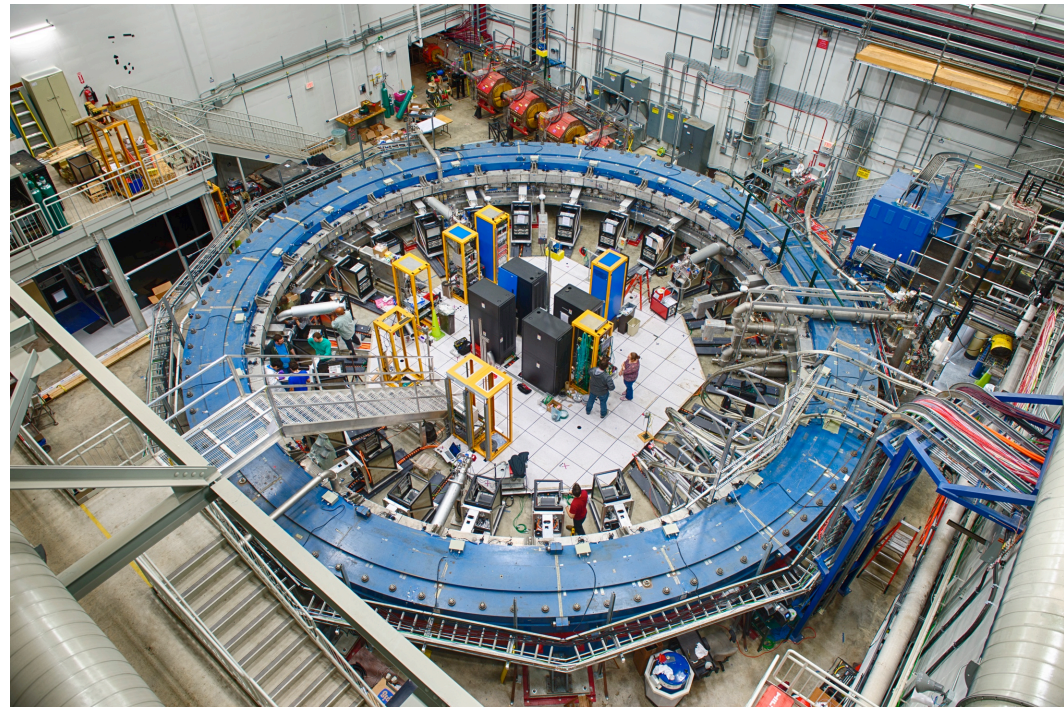
Managed by Fermi Research Alliance, LLC for the U.S. Department of Energy Office of Science

g-2 status

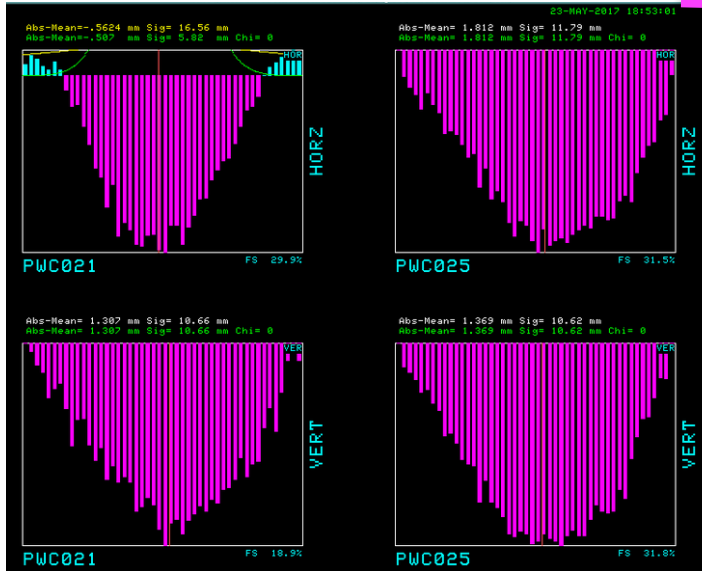
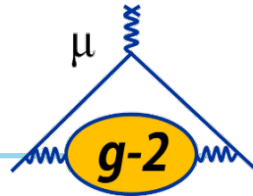
Chris Polly

All Experimenters' Meeting

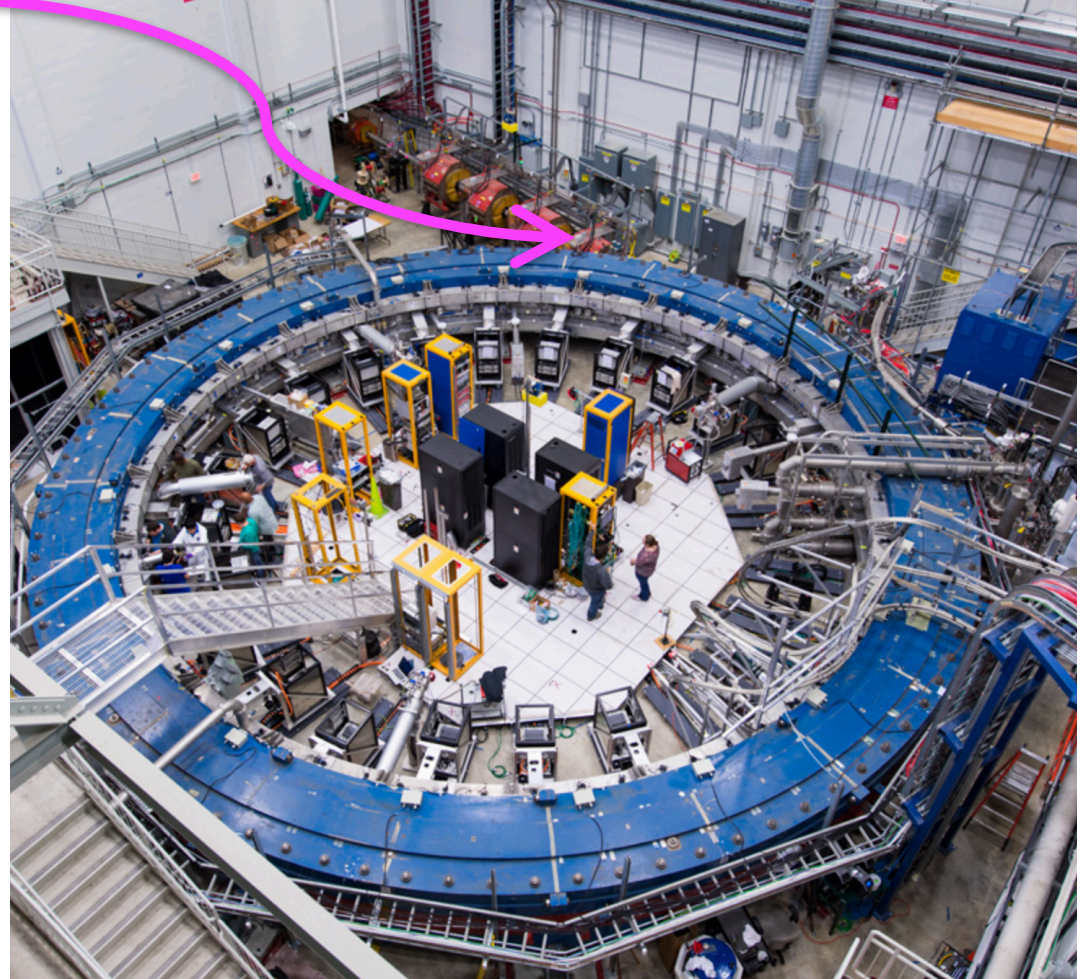
5 June 2017



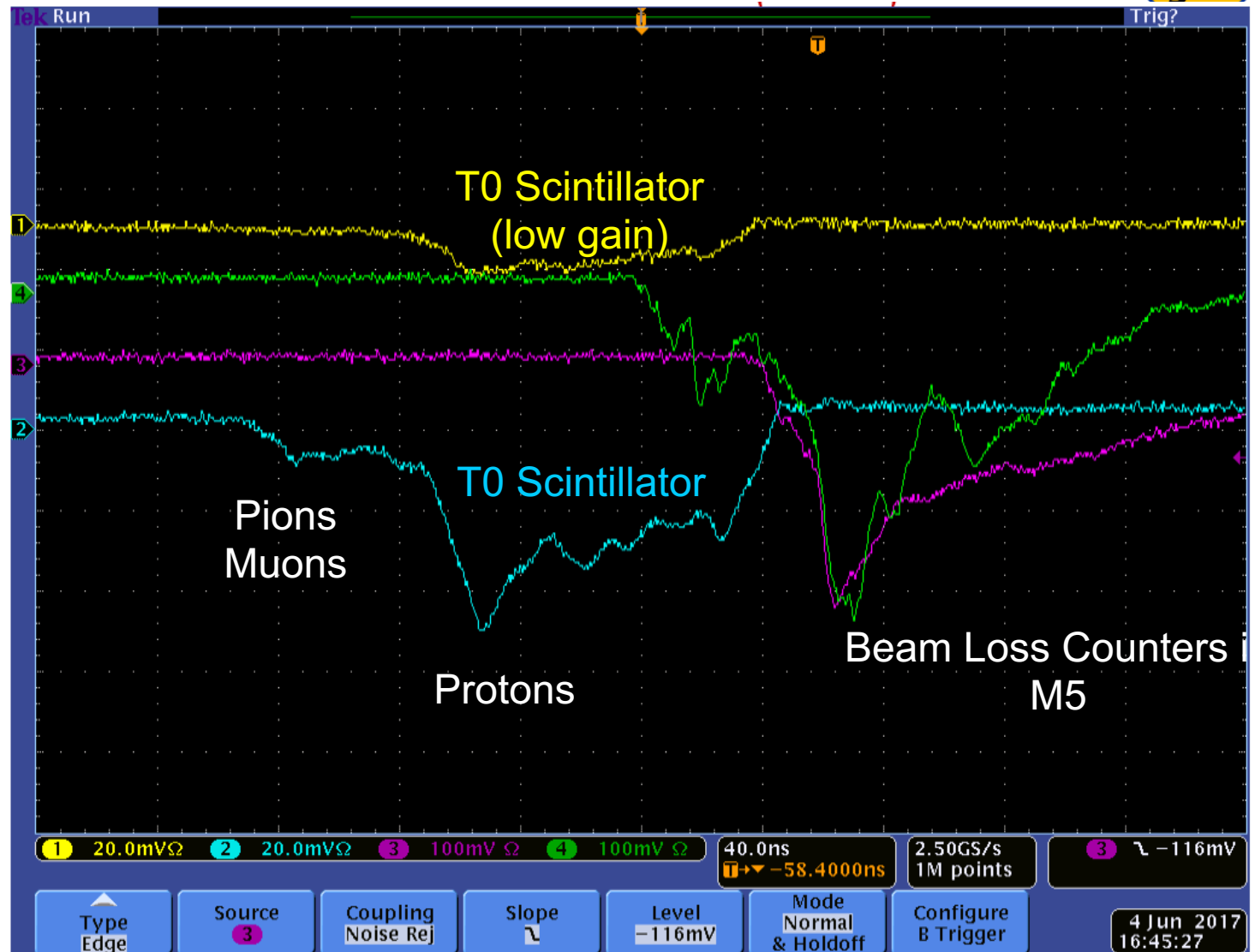
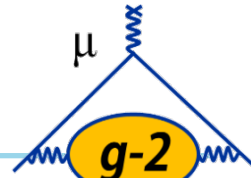
Major milestones met last week!



- The beam is in the building!
- Profiles taken at last PWC just before ring



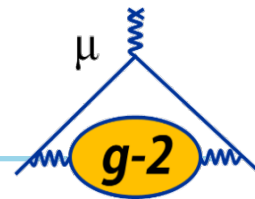
Beam in the ring!



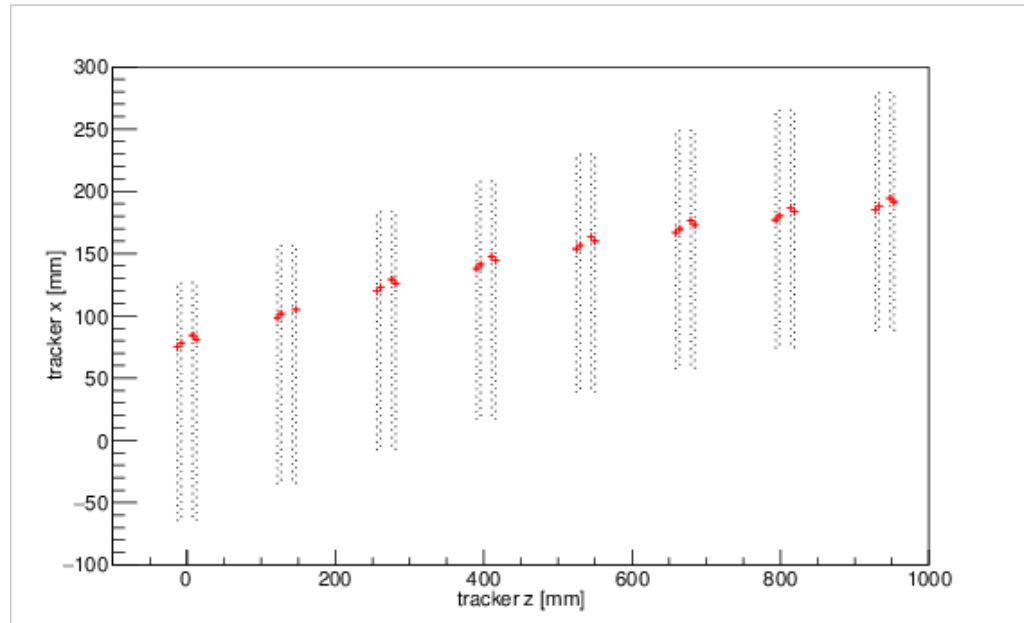
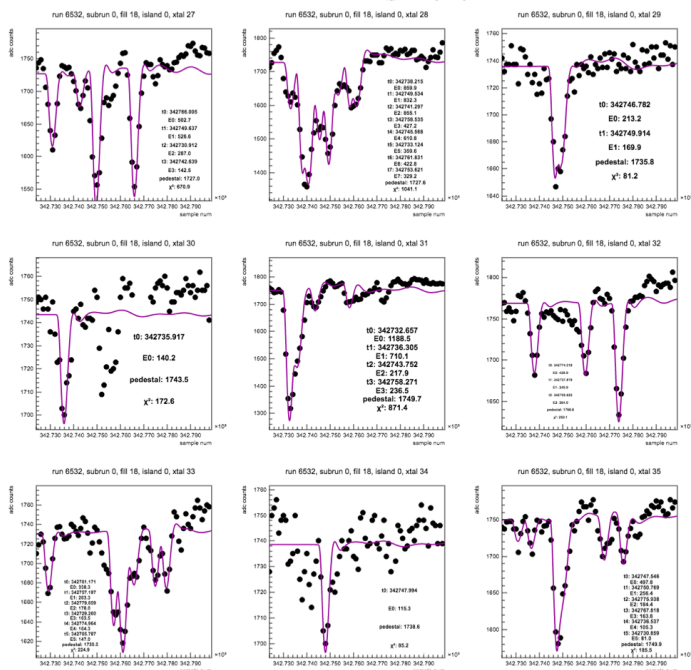
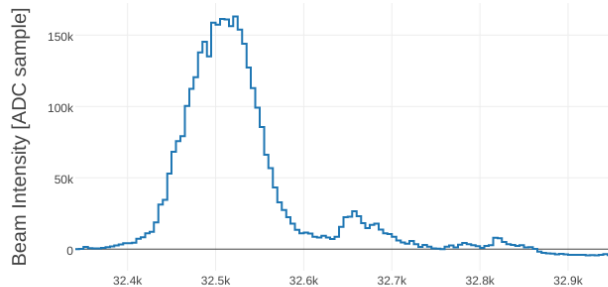
Protons
dominate
because we are
not going
around the DR
yet

Pions/Muons
“lead” protons
by 60 ns owing
to time of flight
at 3.1 GeV/c

Beam in the ring

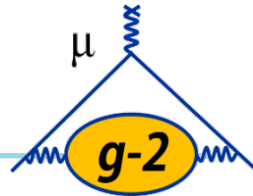


180 deg Y-profile Harp



- Upper left – fiber harps in ring
- Upper right – tracks in straw tracker
- Lower left – data from calos all the way through nearline.

Near Future Plans



- Ring Systems still not at 100% performance
 - T0 – rebuilt this week to allow two light levels
 - Inflector PS – trouble keeping at full current over last two weeks; think problem has been traced to a wiring problem with the 4th → repaired and operated for 30 minutes this AM, will continue testing tomorrow
 - Kickers operating at 75% of full voltage (50% storage efficiency) → additional training needing
 - Quads operating at 15 kV (80% storage efficiency)
- Down for next couple of days to install beam absorber → allows us to commission at 10x rep rate
- Upcoming program time in kickers, work on getting final focus of M5 through inflector, look for first muon stores