

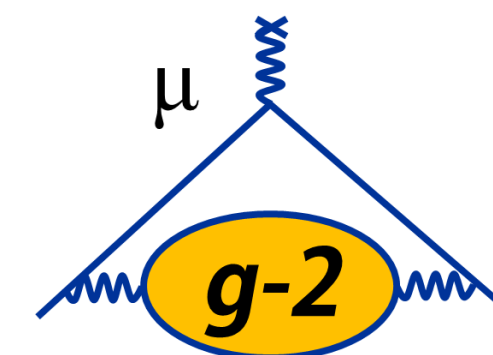


Muon g-2 Update

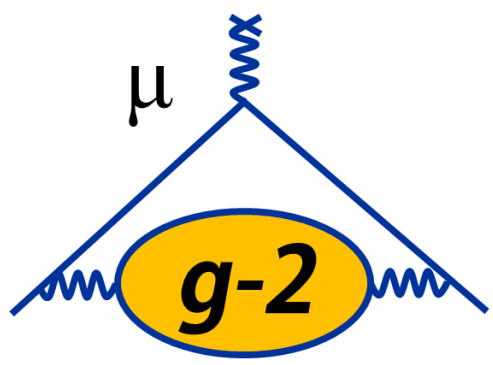
David Flay, Operations Manager

Proton PMG

3 October 2019

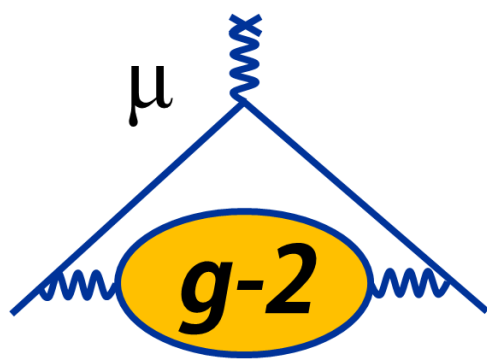


Shutdown Highlights



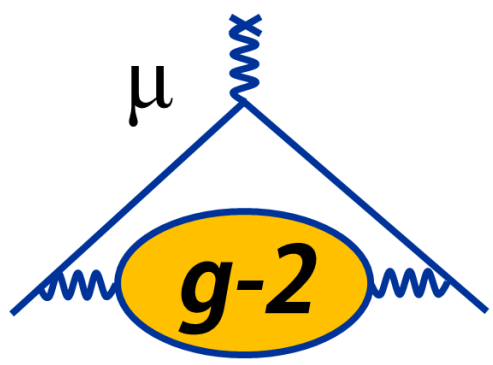
- **Hall**
 - Completed installation of hall cooling system
 - Stabilize magnet temperature => suppress diurnal field variations
- **Cryo**
 - 40-K and 80-K warmups successfully conducted (for cryo insulating vacuum purity)
 - ✓ Magnet cooled back down
- **Kickers**
 - Upgraded vacuum feedthrough for K2
 - New motors installed to improve castor oil flow regulation in blumleins
 - Improvements to magnetometer system for second round of measurements
 - ✓ Successfully operated system at Run-2 settings after upgrades
- **Quads**
 - Expanded RF pulsing capabilities to short plates
 - Upgraded electronics controls system
 - ✓ Ramped to Run-2 settings after upgrades

Run 3 Commissioning Schedule (Before Beam)

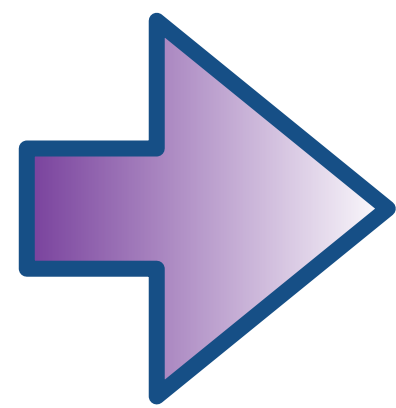


System	9/23–9/29	9/30–10/6	10/7–10/13	10/14–10/21
Controls	Finish hall cooling installation	today		
Cryo		CTCR testing (annual)		
Magnet		Quench protection test	magnet to full power	
Inflector			Quench protection test	ready for beam
Kicker		Castor oil motor installation	Ramp to run-2 settings	Magnetometer installation, studies
Quads	Install RF on short plates		Quad/Kicker interference studies	
Field			Field studies w/Quads	Shimming (wedges)
Laser				Field maps (shimming confirmation)
				Double-pulse studies

Run 3 Commissioning Schedule (With Beam)



- We also have a number of items to accomplish before we start production, spread across 2 weeks
- **Week 1**
 - Trigger timing updates (Kickers, Quads)
 - Scan Inflector current (with IBMS3 inserted in beam path)
 - Active field shimming (Surface Coils)
 - Vertically center the beam (radial field generated by Surface Coils)
 - Trolley runs
 - Laser studies
- **Week 2:** Production with Run-2 conditions



On pace to be ready for beam-related activities by **October 21st**
No float in schedule; will continue towards major milestones