

The Commissioning Run Update of the Muon g-2 Experiment at Fermilab

Wednesday, 30 May 2018 14:00 (20 minutes)

The Muon g-2 Experiment (E989) at Fermilab is measuring the anomalous magnetic moment of the muon a_μ , aiming at improving the precision to 140 parts-per-billion (ppb) and resolving the standard deviation between the previous measurement of a_μ and the Standard Model calculation of a_μ . In E989, the muon beam is stored in a ring magnet. The spin precession frequency ω_a is measured by counting the decay positrons in 24 calorimeters, and the magnetic field is measured by nuclear magnetic resonance (NMR) probes. Important improvements of this experiment and the progress of the commissioning run will be presented.

E-mail

rhong@nal.gov

Collaboration name

Muon g-2 Collaboration

Primary author: Dr HONG, Ran (Argonne National Laboratory)

Presenter: Dr HONG, Ran (Argonne National Laboratory)

Session Classification: Precision Physics at High Intensities

Track Classification: PPHI