

## Fermilab's Muon Campus: Status, Experiments, and Future

*Friday, August 5, 2022 12:05 PM (25 minutes)*

The Fermilab Muon Campus, repurposed Tevatron-era Antiproton Source facilities, is currently the home to the g-2 and Mu2e muon experiments. Collecting data since 2017, the g-2 experiment is currently running and will switch to a mu-minus mode before the Muon Campus transitions to Mu2e operation. Currently in the commissioning process, the Mu2e experiment is expected to begin calibration and data collection in fiscal year 2024. A majority of the Muon Campus is shared between the two experiments, however the modes of operation for each are significantly different. An 8 GeV primary proton beam strikes a target to produce a 3.1 GeV/c secondary muon beam for g-2, while the Mu2e experiment uses the Delivery Ring, formerly the Antiproton Accumulator Ring, for a pulsed, resonantly extracted, 8 kW, 8 GeV proton beam incident on a target in the experiment's target hall to produce a muon beam for the experiment. The current state of the Muon Campus, the current and future plans of the g-2 and Mu2e experiments, including the transition between operating modes, and the challenges associated with Mu2e operation will be presented.

### **Attendance type**

In-person presentation

**Primary author:** BOI, Steven

**Presenter:** BOI, Steven

**Session Classification:** Joint Session

**Track Classification:** WG4: Muon Physics