



# Muons report

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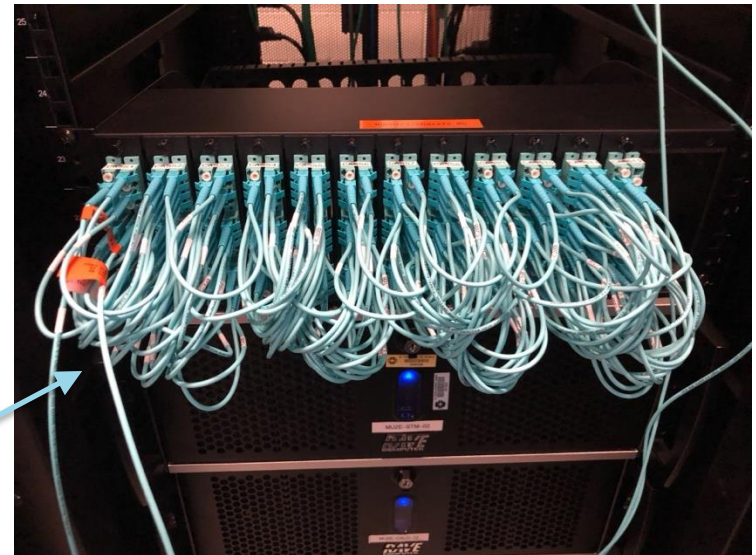
Proton PMG / AEM

06-Feb-2025

<https://indico.fnal.gov/event/68020/>

# Mu2e detectors

- Preparing to bring detectors to Mu2e hall
  - Preparing g-blocks for KPP configuration
    - Blocks = (Trk+Calo “ceiling”) + (CRV “floor”)
  - Developing access techniques for Trk & Calo
  - Investigating environment in hall
- Tracker
  - All 36 planes have been constructed
  - Reviewing station assembly procedures
- Calorimeter
  - Commissioning powering of electronics
  - DT gen: began program of regular running
- Cosmic Ray Veto
  - Updating from POE → POE++ for electronics
- Stopping Target Monitor
  - Designing stands
- Data Acquisition
  - 17-21 Feb: Global Run #4
  - Optical fiber plant installation continues



# Mu2e infrastructure

- Coordinated w/ PIP-II+ISD+AD+PPD on PIP-II work that affects Muon Campus power
  - Appreciate efforts to keep both PIP-II & Mu2e moving
- Electricians completed installation for
  - Beam enclosures
  - Full flow purifier
- Contract in procurement for preventative maintenance of air compressor
  - Compressor procured many years ago but not really used until last year
- 18-Feb: replace Automatic Transfer Switch at MC1
  - To automatically switch to backup power for Mu2e cryo plant
- Start of 2025 shutdown: Feeder 46A replacement
  - Fdr 46A runs thru same manhole as Fdr 24, which feeds Muon Campus





# Status of Pauses

Filters at MC1  
on 27-Jan:

- Following beamline dipoles incident, have cleared the air in MC1 and MC2 (aka Mu2e)
  - Mon 27-Jan: paused work
    - Turned on fans, changed HVAC filters
  - Tue 28-Jan: removed pause
    - ... in consultation with PPD Division Safety Officer and ESH Industrial Hygiene
- 03-Feb: paused work to remove “Belleville effect at TSu-TSd interconnect
  - Recall: collimator at this interconnect needs to be able to rotate for charge selection
  - Paused work to understand barrel heater failure
- Paused hanging of extinction monitor collimator
  - Paused to understand engineering issues
  - Expect to restart work the week of 17-Feb
- 29-Jan: Safety Pause at Mu2e
  - Looked at Confined Space, ODH, LOTO



(These were new as of 10-Jan)



# Muon g-2

- Analysis of full dataset ongoing → expecting results in first half of 2025
- First EDM result based on Run-2/3 is in the review stage and expected for release in first half of 2025
  - Some issues with grid and grid-related infrastructure... thank you to CSAID for heroic efforts to support our EDM analysis through these issues

# Backup