



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

PPD Status

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AEM

26 March 2018

- Operations
 - Magnet ramping, expect running with cosmics and 3.8T Thursday or Friday, over the weekend
 - Machine preparations also going well, preparing for first splashes of 2018 beam probably early next
- Phase 1 Upgrade
 - HB smoothly rolling along, HE installed and working!
- HL-LHC Upgrade
 - Neck-deep in review preparation for CD-1 Director's Review April 4-6

Mu2e

- Solenoids
 - Last Thursday (3/22), GA successfully inserted the model coil into the shell. Sandor Feher (TD) was in Tupelo to witness the insertion. The epoxy is being cured. The model coil is next scheduled to undergo room temperature and LN2 electrical tests.
 - The TS first unit arrived at Fermilab last week and is undergoing a nitrogen purge in preparation for room temperature hi-pot and electrical tests.



Tracker

- Tracker
 - The first panel to be made with production fixturing (PAAS-A,B,C) is complete and off the fixture.
 - The full analogue motherboard (AMB) has been installed in the previous panel. Several straws have been completely fitted with pre-production electronics.



Mu2e

- CRV
 - 1,500 m extruded the week of March 19.
 - 17,700 m total extruded – about ~ 68% of detector scintillator total

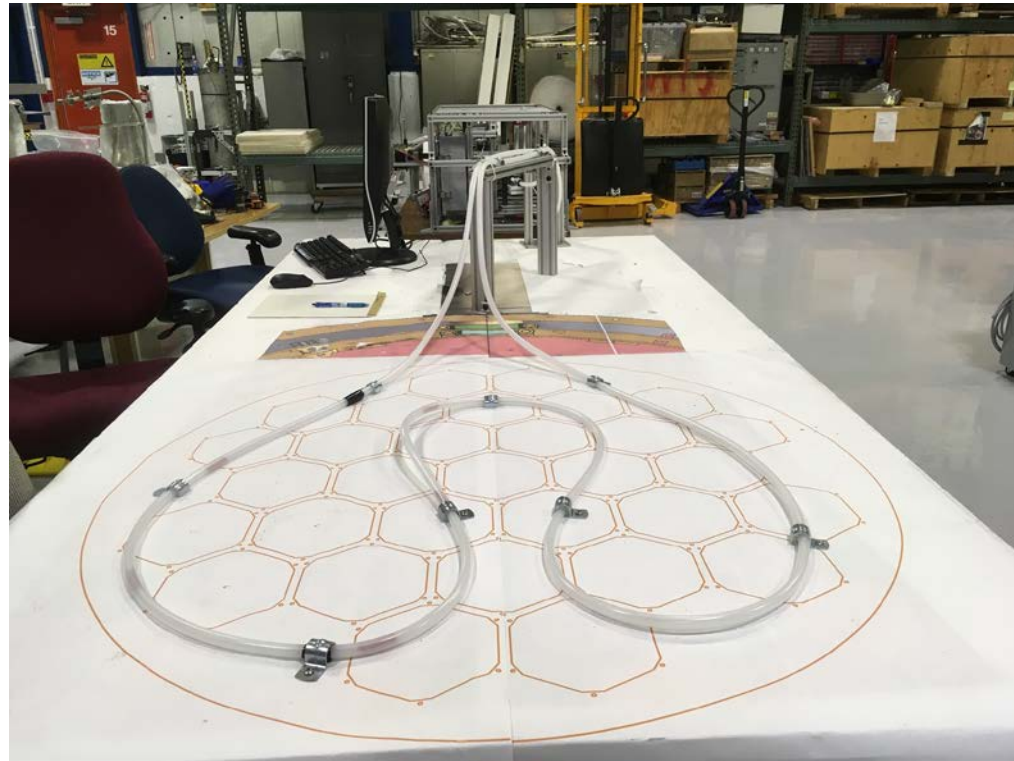


- DES

- Last week we had two DES teams at the telescope. Routine replacement of the LN2 pump (worn bearing cages) and new seals for the vacuum jacket connection at the camera. Non-routine diagnostics of a bad slot in the filter changer. The filter changer & shutter were removed, cleaned, greased and the bad slot was fixed.
- There was a Balrog workshop at Fermilab with participants from UC Santa Cruz and JPL. Progress was made both on the details of the galaxies to be added to images and on the overall goal of constructing shear-shear correlation function randoms.

Astro

- SuperCDMS
 - Prototype completed at Lab G for the radioactive source calibration system needed for the SuperCDMS SNOLAB experiment.



Astro

- LSST

- Galaxy-shear, galaxy-galaxy correlation functions are completed and verified with DES Y1 results. Next is adding the shear-shear correlation function and doing the full 3x2 data vector construction.
- Huan Lin analyzed simulation test runs as compared to DES DECam data. Preparation for large image simulation
 - Verified small scale sky fluctuations in the simulations was consistent with DECam data
- Photo from March 20, 2018 construction progress



Astro

- SENSEI
 - Testing packaging prototypes at SiDeT
 - Visited SURF to evaluate it as a possible installation site.



Test Beam

- The sPHENIX calorimeter groups (T1044) and LAPPDs (T1450) are wrapping up this week.
- CMS Timing (T1409) and ATLAS Pixels (T1224) will install and start data taking.

Custom Detector Technologies

- Scintillator:
 - Preparing styrene monomer to start BaF₂-doped plastic scintillator R&D work.
- Thin films: ProtoDune – R&D
 - Cleaned and heat treated in vacuum oven 12 Omega dichroic filters.
 - Coated 12 Omega dichroic filters with PTP on the glass side and 1 Asahi dichroic filter sample with a fine sandblasted surface on the glass side.
 - Packaged 17 Omega dichroic filters for shipping to Colorado State University for assembly of Arapucas.
- Wire windings:
 - Repaired PWC for FTBF.
 - Started work to update old PWC for FTBF to new design.
 - Continued work on new chambers for Mu2e requested by AD
 - Two more chambers were completed. Total: 19 chambers finished out of 24 chambers requested.

