



# 2x2 DAQ/Computing Working Group for ArgonCube 2x2 Demonstrator

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2x2 DAQ/Computing Working Group



# News

- Currently taking neutrino data under excellent detector conditions!
  - LAr purity at O(ms) electron lifetime
  - LAr level being maintained within 5 mm of our maximum
  - HV at nominal setting, providing 500 V/cm drift fields. No signs of instabilities.
- Beam is now scheduled to turn off at 4 am on Friday July 12th, not at 12:01 am as previously announced.
- 2x2 recognition in DUNE collaboration
  - Email from Sergio Bertolucci (DUNE co-spokesperson) to dune-collab
    - Dear All,
    - Please have a look at the spectacular events recently recorded by the 2x2 prototype on the NuMI (anti)neutrino beam:
    - <https://docs.dunescience.org/cgi-bin/sso/ShowDocument?docid=31344>
    - Let's congratulate the team for their hard work and this important achievement and let's thank FNAL for its thorough support of this effort.
    - A more detailed report will be given at the next Collaboration call on July 19th.
    - Mary and Sergio
- Power outage to underground area scheduled for August 8, 8:20-16:00 CT
  - Put 2x2 into a safe condition for the power outage
  - Electrical feeder 44 maintenance

# Next Steps

- 2x2 Operations meetings continue (every Tuesday at 11)
  - Document lessons learned
  - Plan 2x2 activities for off-beam period
- DAQ/Comp meetings continue (next meeting on 25 July)
  - Slow controls
  - Run control
  - Shifts
- ND Prototypes Analysis working group
  - Convened by Zoya Vallari and Pedro Ochoa-Ricoux
  - Meeting every other week on Thursdays from 11:30-13:00 CT
  - [dune-physics-nd-proto-analysis@fnal.gov](mailto:dune-physics-nd-proto-analysis@fnal.gov)
  - [#nd\\_prototype\\_analysis](#) on Slack

# Computing and Networking

- Power off old servers that won't run latest Linux (AL9)
- At LArTF – all servers
  - acd-srv01 and srv02
  - acd-gw01, gw02, gw03, gw04
  - Looking into keeping the network equipment
- Underground
  - acd-srv03, srv04 – was used for minerva readout

# 2x2 Communication

- 2x2 wiki
  - <https://cdcv.s.fnal.gov/redmine/projects/argoncube-2x2-demonstrator/wiki>
- 2x2 logbook
  - <https://dbweb0.fnal.gov:8443/ECL/argoncube>
- 2x2 Slack channels – Slack is not a logbook
  - 2x2\_operations
  - 2x2\_run\_control
  - minerva-for-2x2
- Email lists
  - dune-nd-lar-cnsrt-daqcomp
  - dune-2x2-ops

# Why this meeting?

- Started before 2x2 Operations meetings (Tuesdays at 11) and daily toolbox meetings (3:30) to address technical topics
  - Triggering (A9 signals) – open readout gates
  - Resistive wall monitor – identifies when protons pass RWM device
  - Computing and networking
- Discuss current topics (see agenda)
  - Run controls
  - Data management
  - Runs DB
  - Slow controls using Grafana and python scripts
  - Shifting and Operations
  - Computing and networking
- Look to the future
  - dunedaq - postponed
  - dune timing - postponed
  - slow controls for experiment devices
    - EPICS – used for SBN (SBND, Icarus, uBoone)
    - Ignition – used by Cryo controls