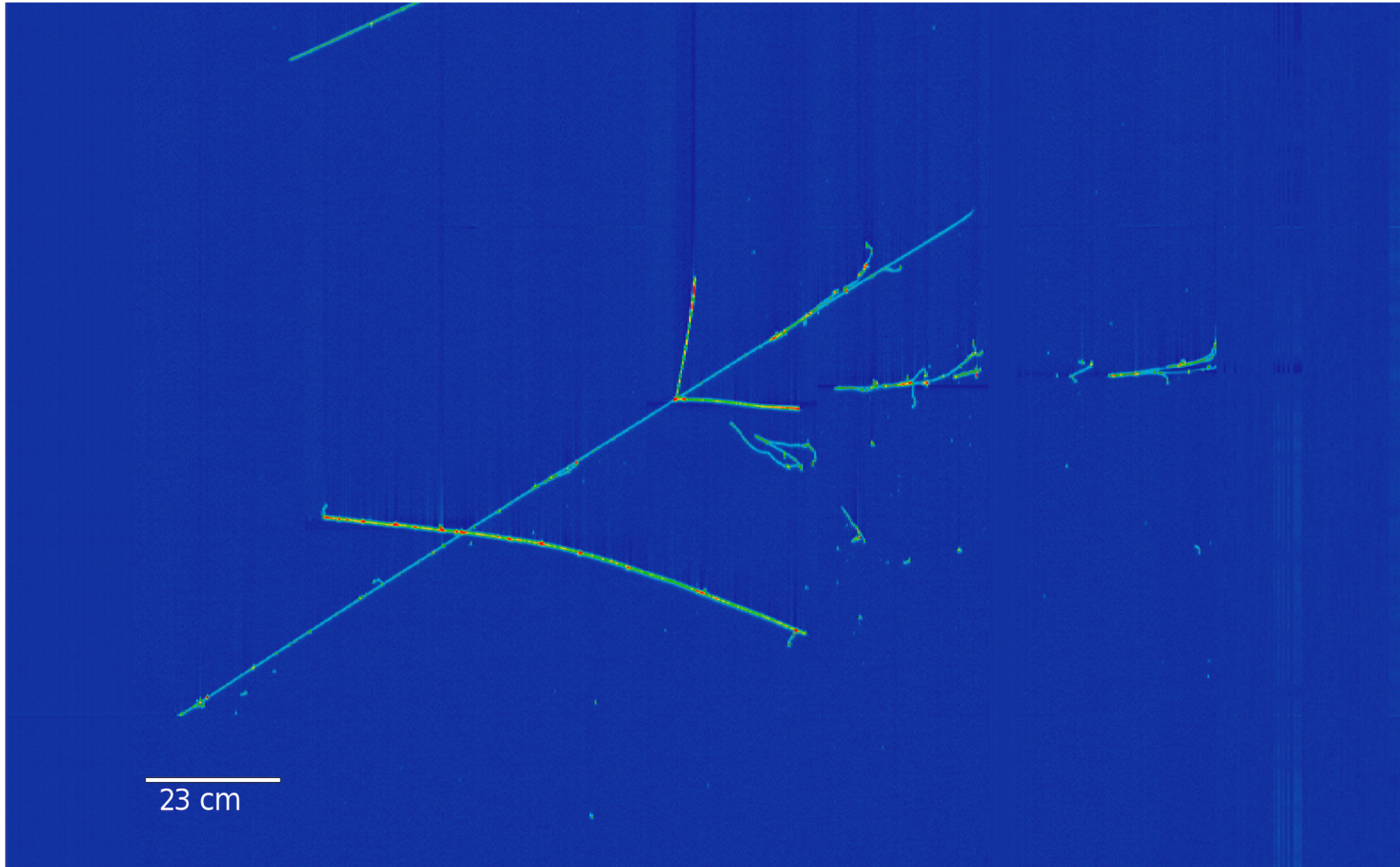


# MICROBOONE REPORT

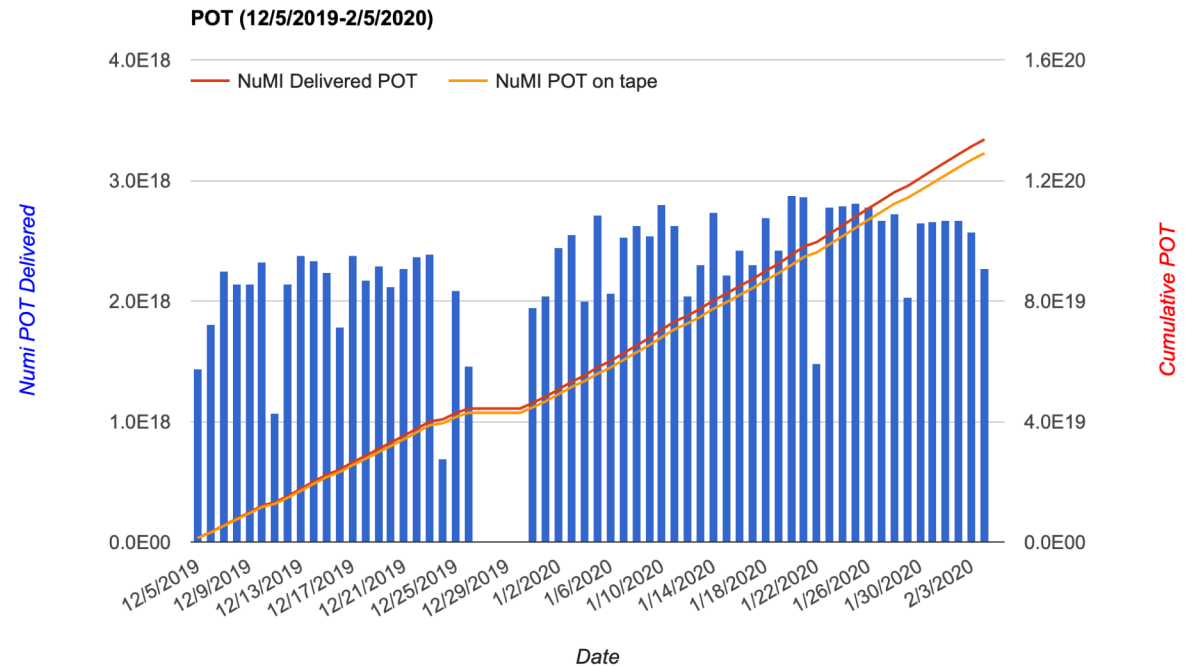
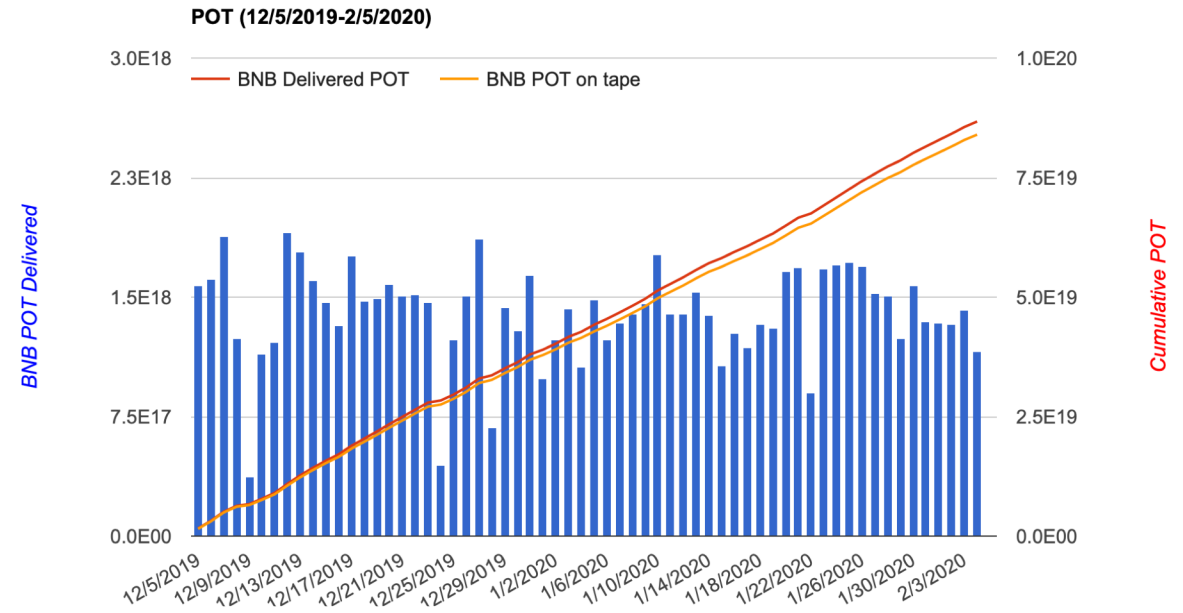
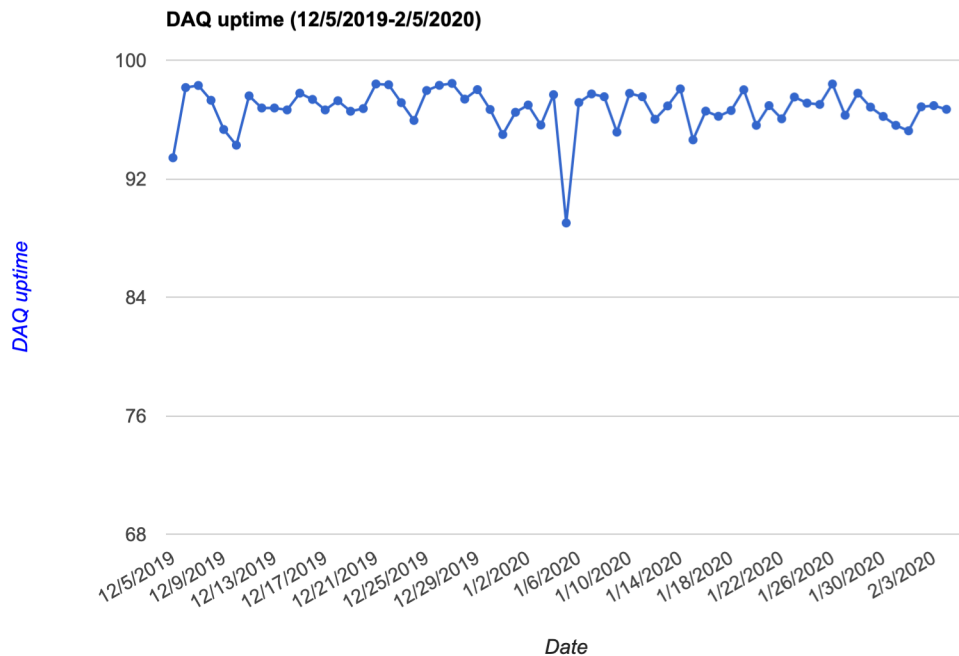


R. SHARANKOVA, A. BHAT, G. SCANAVINI

PROTON MANAGEMENT GROUP MEETING 02/06/2020

# BEAM AND DATA TAKING

- BNB POT delivered:  $8.67E19$ , on tape:  $8.40E19$
- NuMI POT delivered:  $1.34E20$ , on tape:  $1.29E20$
- Average DAQ uptime **96.7%**



# COMPUTING SUMMARY

Average Jobs Running Concurrently

2703

Total Jobs Run

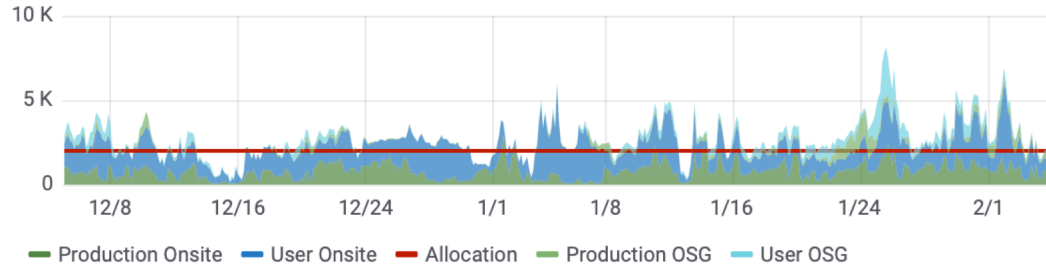
3165418

Average Time Spent Waiting in Queue (Production)

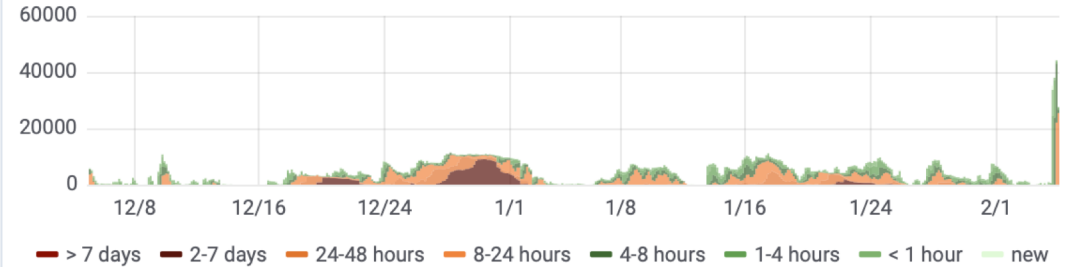
7.23 hour

## Running Jobs

Running Batch Jobs

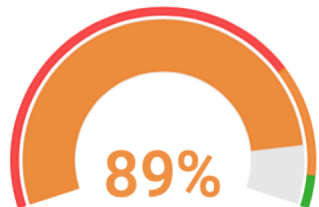


Queued Production Jobs by Wait Time

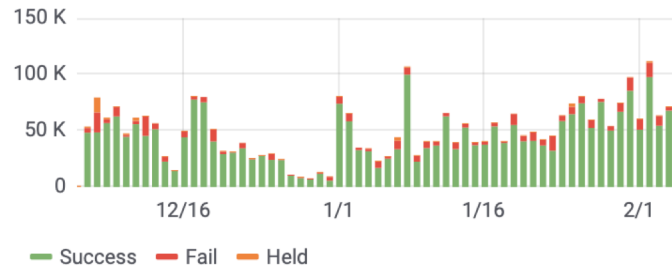


## Completion and Efficiency Stats

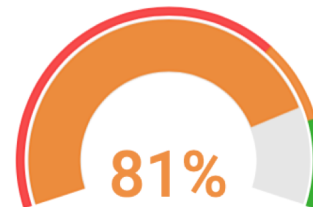
Job Success Rate



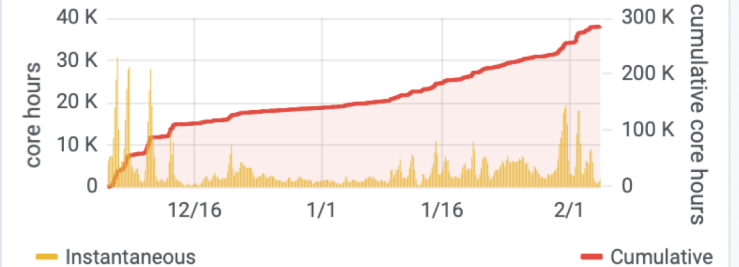
Job Success & Failures per Day



Overall CPU Efficiency



Total Time Wasted by Running Jobs



# CRT

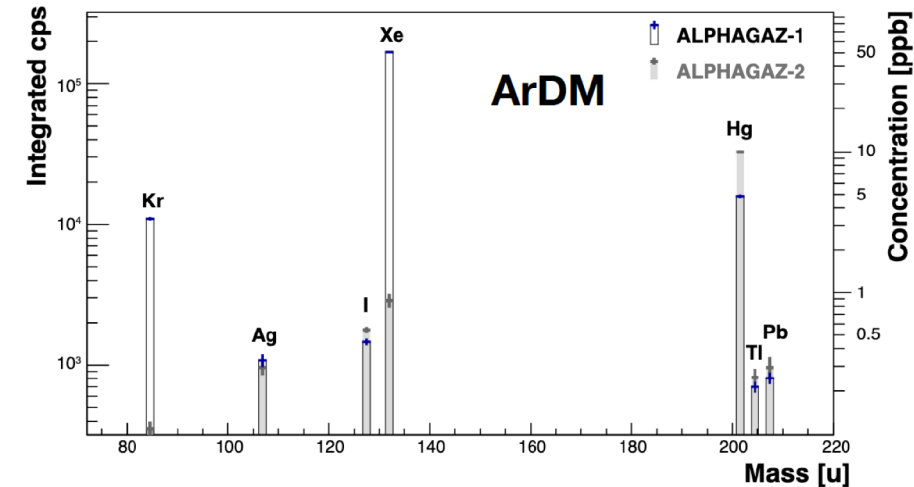
- Has seen instabilities on CRT power supply
- Working with Mike Utes from EED to diagnose the unit & perform maintenance
  - SBND uses same PS: this work will be beneficial for them as well



# ARGON SAMPLE

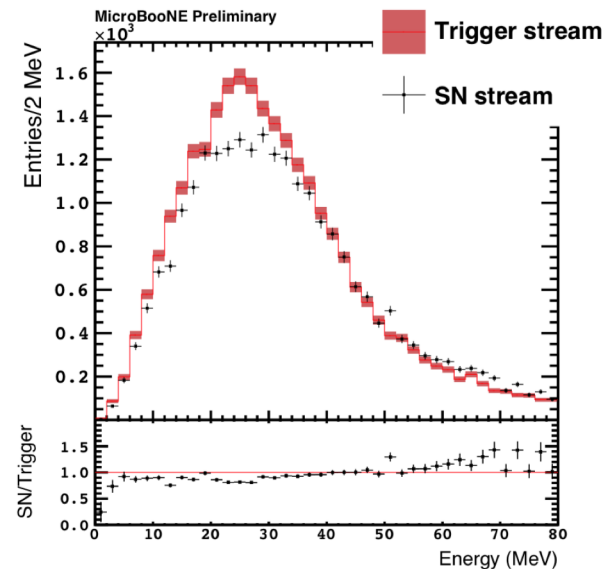
- MicroBooNE wants to analyze an Argon sample
  - Test for unknown contaminants that may be causing ~20% observed light decline since 2016
  - MicroBooNE & SBND collaborator R. Santoreli at CIEMAT, Madrid has agreed to perform analysis
- Finalizing plans to take a gas sample from cryostat
  - Cryogenics team drafted a procedure & operations approved
  - Shipping time estimate 1~2w
  - Analysis can proceed as soon as sample arrives
- This will be a useful measurement for next generation large scale LArTPC detectors

< 1 ppb precision measurement  
on array of contaminants

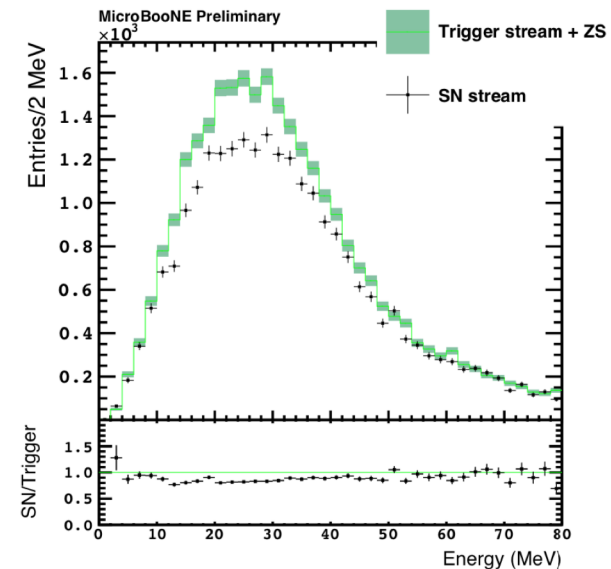


# PHYSICS NEWS

- New paper “Vertex-Finding and Reconstruction of Contained Two-track Neutrino Events in the MicroBooNE Detector” in internal circulation, aimed for submission to JINST
- New public note “The Continuous Readout Stream of the MicroBooNE Liquid Argon Time Projection Chamber for Detection of Supernova Neutrinos” available [MICROBOONE-NOTE-I030-PUB](#)



(a) Plane Y (standard Trigger Stream).



(b) Plane Y (Trigger Stream with ZS emulation).