



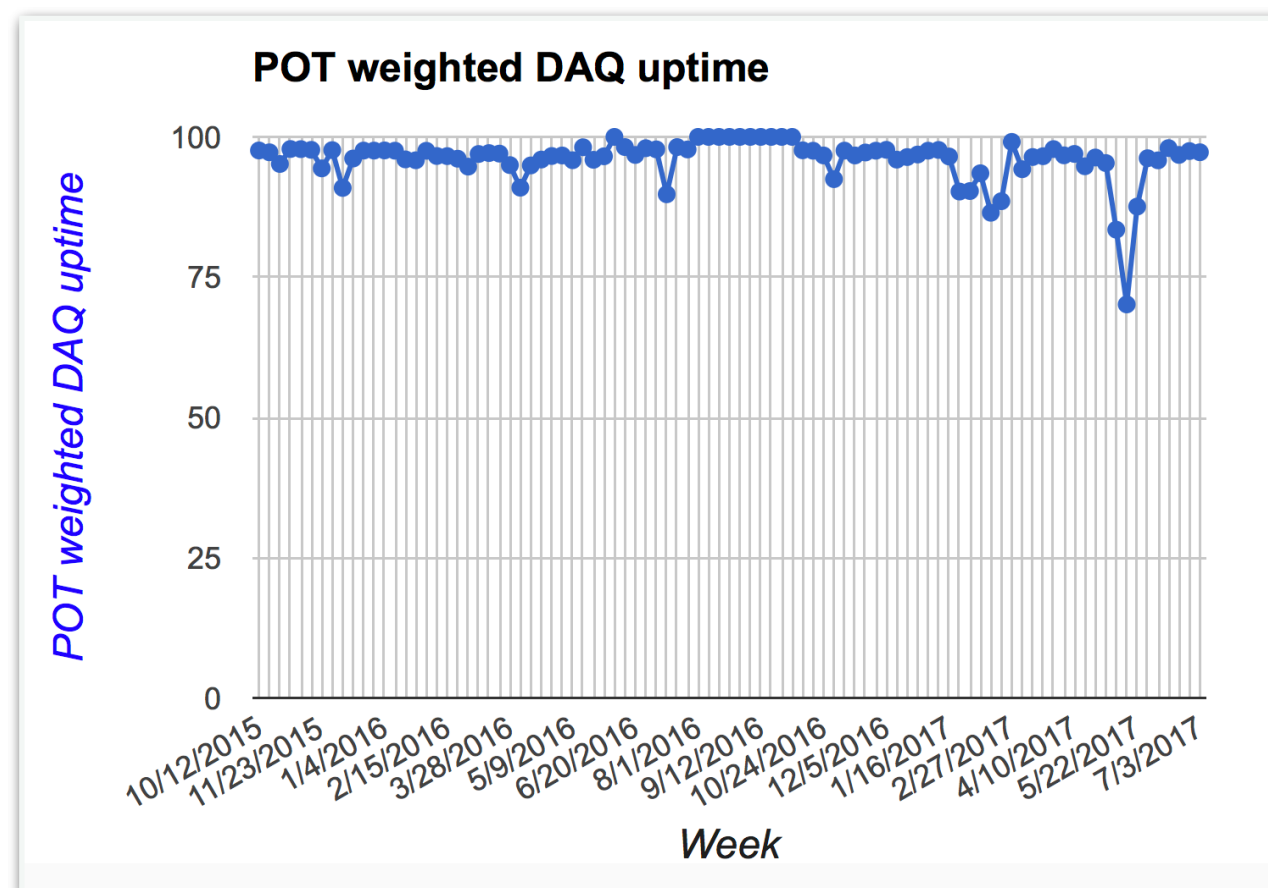
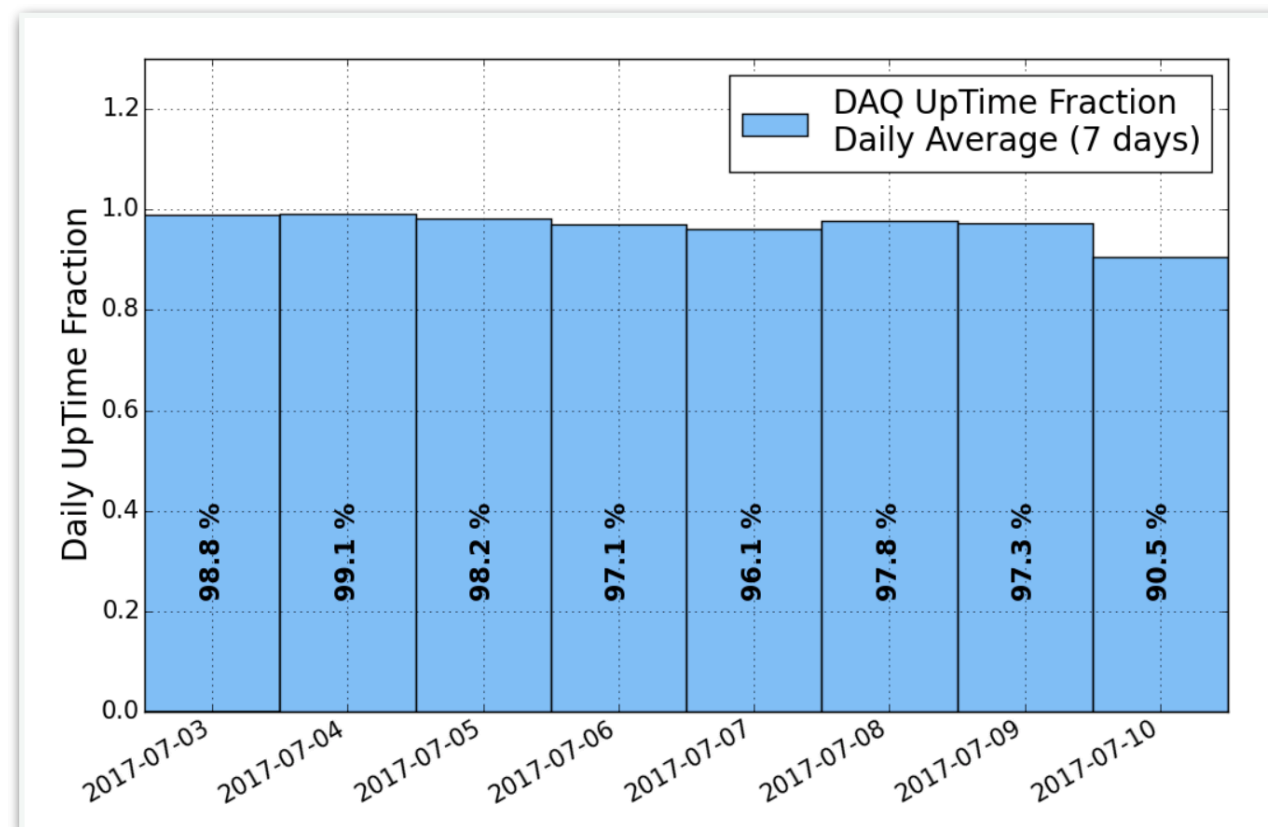
MicroBooNE Status Report

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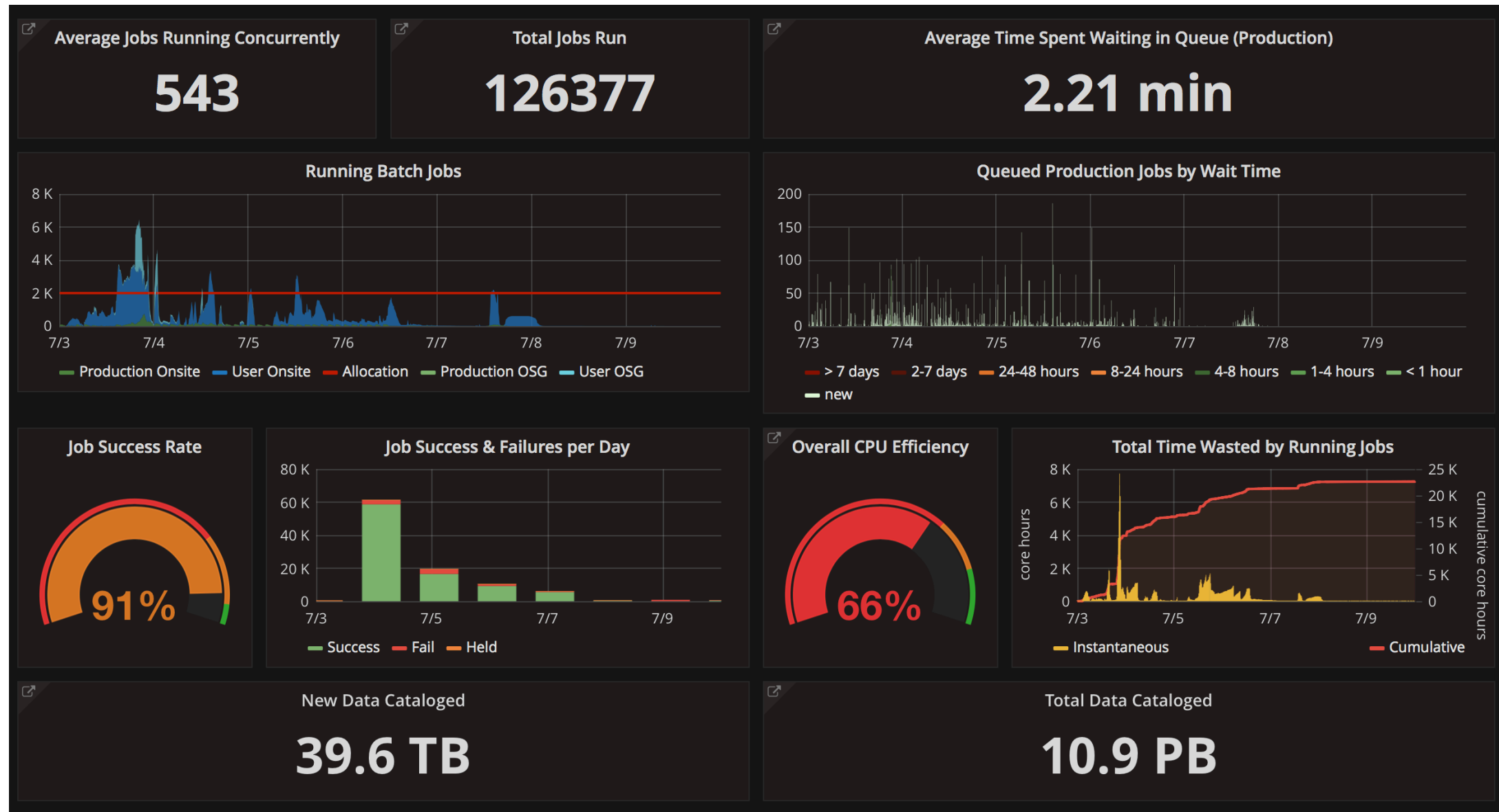
AEM Meeting
10th July 2017

Beam Statistics

- POT weighted DAQ uptime: **97.3%**
- Beam uptime: **62.2%**
- POT delivered (this week):
 - 5.5×10^{18}
- POT on tape (this week):
 - 4.6×10^{18}
- Total POT delivered (detector ON):
 - 6.9×10^{20} (6.5×10^{20})
- Total POT on tape (detector ON):
 - 6.6×10^{20} (6.2×10^{20})



Computing Summary



- Smooth computing week
- Overall CPU efficiency not optimal and related to analyzer activities only
- Two-day computing tutorial for new analyzers planned on 24th-25th July, just before the MicroBooNE Collaboration Meeting

News

- Stable running last week, despite frequent non-critical alarms from ongoing beam tests
- Shutdown started last Friday 7th at noon
- Currently running at 15Hz external trigger rate
 - it will be soon optimized to maximize efficiency (rate and DAQ uptime)
 - goals: study supernova stream, perform DAQ tests, and acquire as much cosmic data as possible to fulfill the physics group request
- Cryogenics maintenance starting next week (Monday 14th)
 - actually in parallel with other maintenance activities such as PMT HV and LAr purity studies
- Wine & Cheese seminar on Friday, 28th July 2017:

“Results from MicroBooNE’s First Year of Operations”
Corey Adams (Harvard University)

Over the past year MicroBooNE has...

- **submitted 5 papers to journals!**

<https://www-microboone.fnal.gov/publications/index.html>

- detector, noise, Michel electrons, multiple Coulomb scattering, and convolutional neural nets

- **produced 15 public notes**

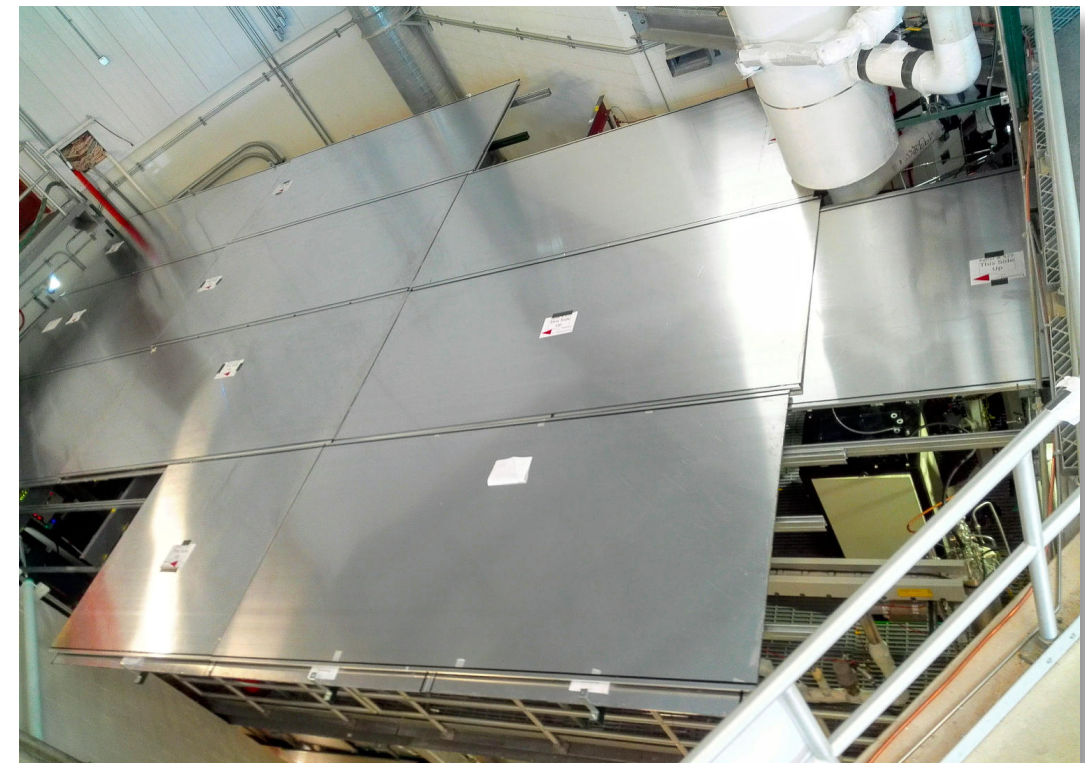
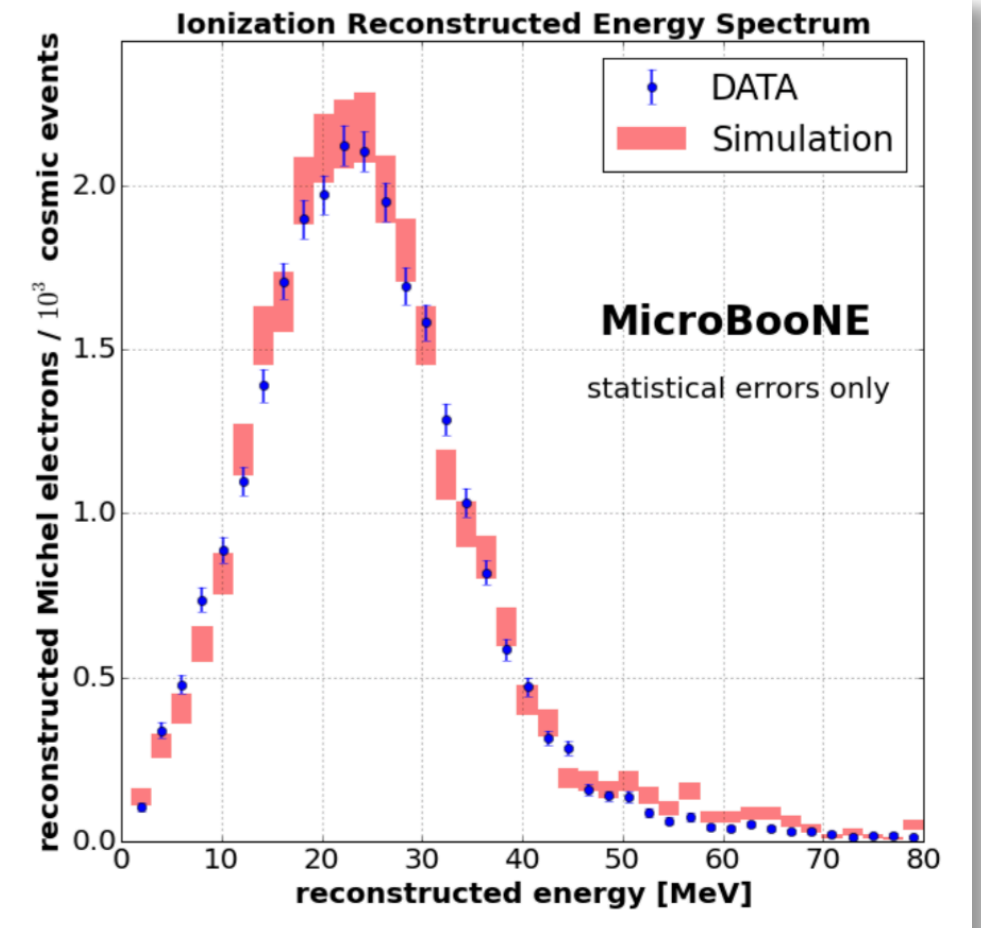
<https://www-microboone.fnal.gov/publications/publicnotes>

- detector performance, reconstruction techniques, and initial physics analyses

- **recorded 6.2×10^{20} POT with detector on**

- 95% detector uptime
- excellent argon purity (<17 ppt O_2)
- drift high voltage and feedthrough connectivity investigations in Feb
- cryogenics issues in May that will be further investigated this summer

- **installed a new 1M\$ cosmic ray tagger & new service boards in all TPC feedthroughs**



Summary

- MicroBooNE is running smoothly at the HV of 70kV
- **6.2 10^{20} total POT on TAPE** with detector ON
- Shutdown activities already started: DAQ tests this week, cryogenics maintenance from next week
- When other work is not carried out, MicroBooNE will collect as much cosmic data as possible, as requested by the physics groups
- Wine & Cheese seminar by Corey Adams on July 28th about MicroBooNE's first year of operations