

# The MINERvA Operations Report

## All Experimenters Meeting

Howard Budd, University of Rochester

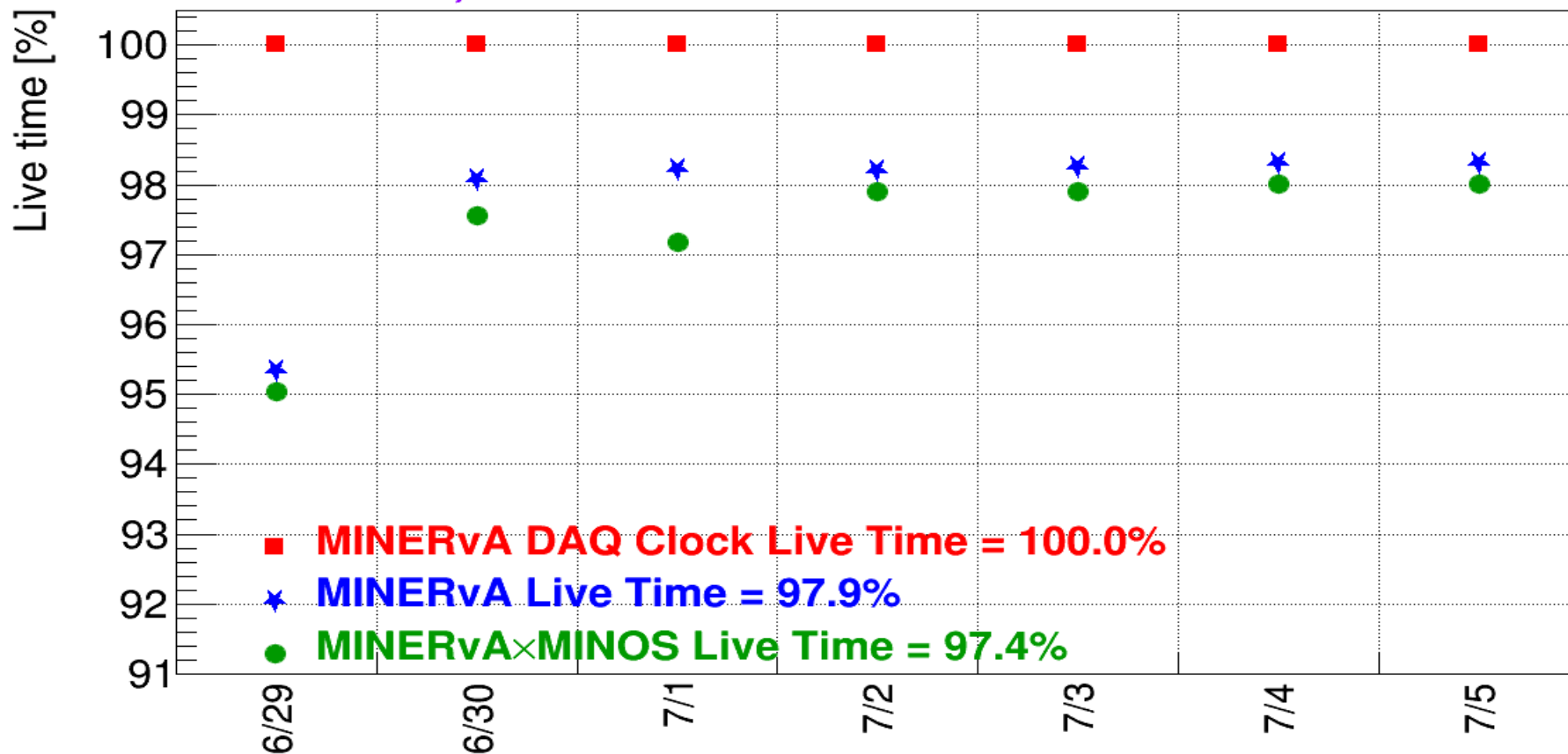
Jul 10 2017



# v Data



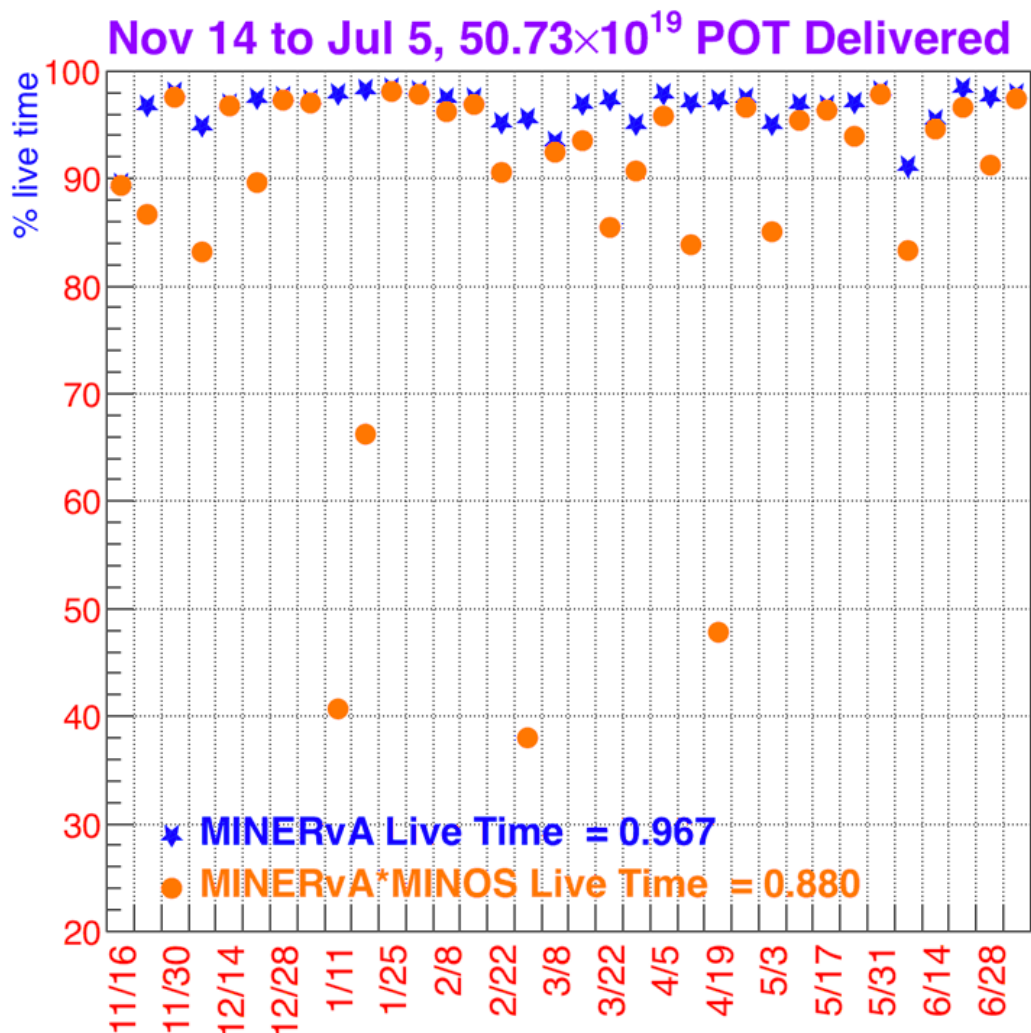
Jun 29 - Jul 5, 2017: POT Delivered =  $1.77 \times 10^{19}$



- Jun 29 95.3% MINERvA Live
  - 2 subruns not processed



# Weekly Live Times, FY17



- $3.12 \times 10^{20}$  POT anti-ν
- Live times FY17
  - MINERvA 96.7%
  - Total 88.0%
- Of the 4 points with total live times < 70% 3 of them were due to MINOS near line problems. The problems are fixed, and the data are fine.
  - Live times not recalculated
  - Not including those 3 weeks, the total live time was 91.8%
- The other, 4/19, was due to the MINOS magnet failure from a bad AC power cable. Temporary fixes were used until the May 2 shutdown when new power cables were installed.

July 3-9

Average Jobs Running Concurrently

1815

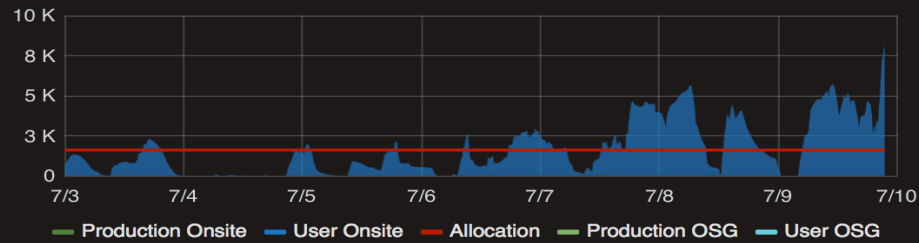
Total Jobs Run

163374

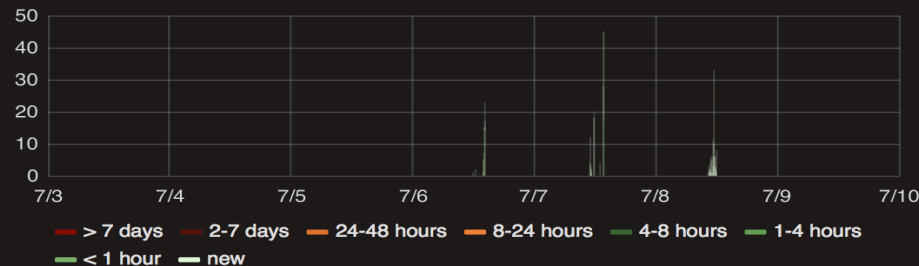
Average Time Spent Waiting in Queue (Production)

1.85 min

Running Batch Jobs



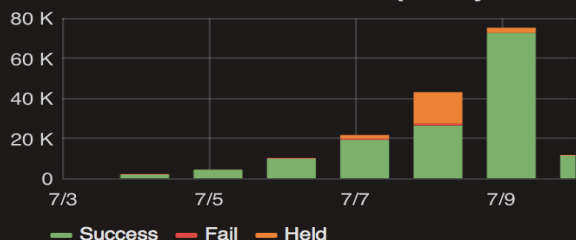
Queued Production Jobs by Wait Time



Job Success Rate



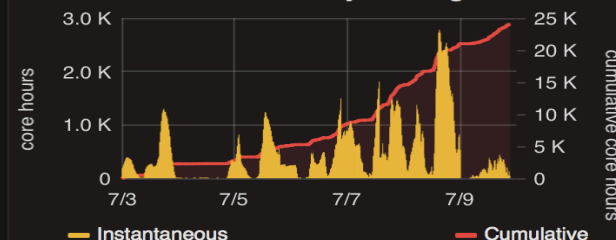
Job Success & Failures per Day



Overall CPU Efficiency



Total Time Wasted by Running Jobs



New Data Cataloged

0.5 TB

Total Data Cataloged

1.6 PB

- Average concurrent jobs are ~1800
- Job success rate and overall CPU efficiency are slightly low due to staging input files on disk from the tape
- Te MINOS database meeting with the CD data base administrators, we all agreed that the performance is fine. The final migration to mariadb production is scheduled tentatively for Aug. 1.



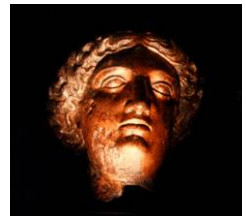
# MINERvA Publications in FY17



- Direct Measurement of Nuclear Dependence of Charged Current Quasielastic-like Neutrino Interactions Using MINERvA
  - submitted for publication
- Measurement of the Antineutrino to Neutrino Charged Current Interaction Cross Section Ratio on Carbon
  - Phys. Rev. D 95, 072009 (2017)
- Measurement of Neutral-Current  $K^+$  Production by Neutrinos Using MINERvA
  - Phys. Rev. Lett. 199, 011802 (2017)
- Measurements of the Inclusive Neutrino and Antineutrino Charged Current Cross Sections in MINERvA Using the Low- $\nu$  Flux Method
  - Phys. Rev. D 94, 112007 (2016)
- Neutrino Flux Predictions for the NuMI Beam
  - Phys. Rev. D 94, 092005 (2016)



# MINERvA Joint Experimental-Theoretical Physics Seminars in FY17



- Nuclear Dependence of Quasi-Elastic Scattering at MINERvA
  - Minerba Betancourt, Fermilab, Oct. 7, 2016
- From Exclusive to Inclusive and Back Again: the Most Elastic Interactions of Neutrinos at MINERvA
  - Dan Ruterbories, University of Rochester, Mar. 3, 2017
- Measurement of Charged-Current Single Neutral Pion Production on Hydrocarbon in the Few-GeV Region Using MINERvA
  - Ozgur Altinok, Tufts University, Jul. 7, 2017