
MicroBooNE status

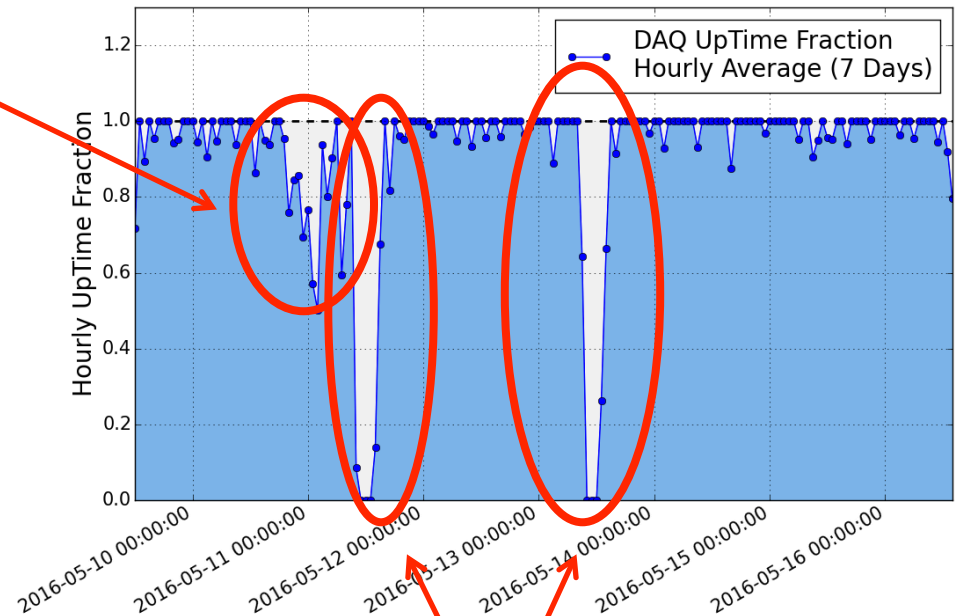
Andy Furmanski

All Experimenters Meeting

16th May 2016

DAQ uptime

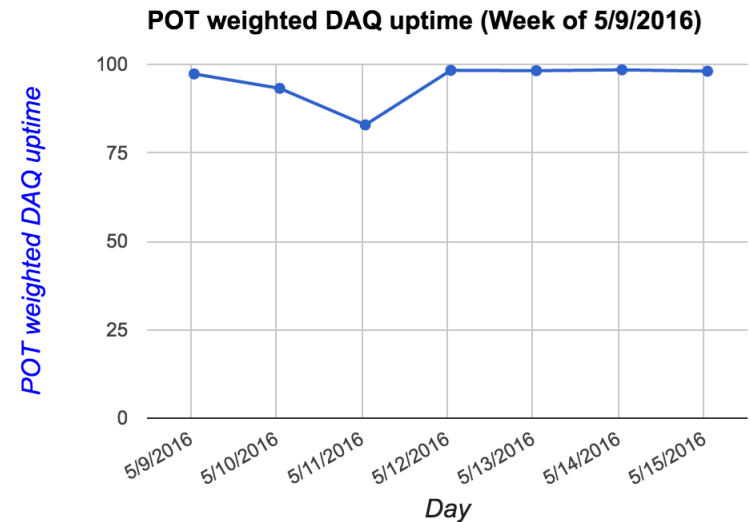
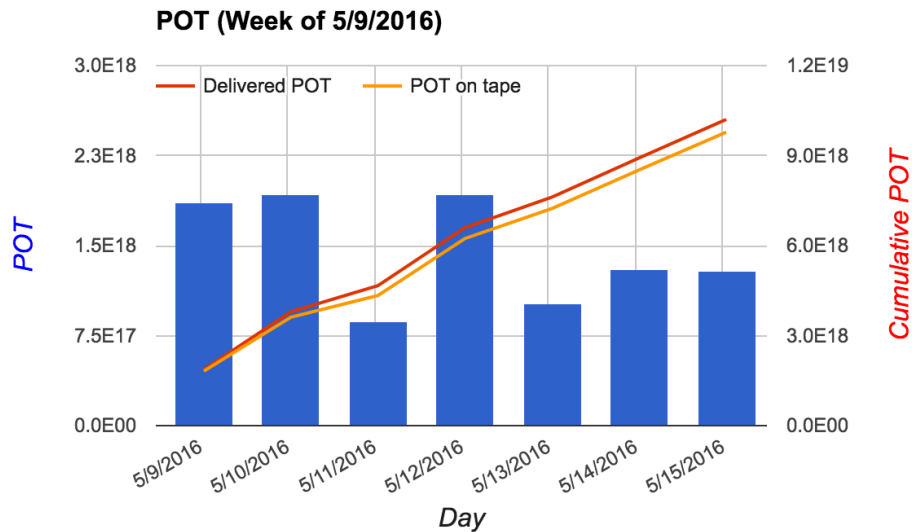
- Good DAQ uptime. Some issues seen the evening of the 10th (Tuesday)
- Many runs crashing
- PMT rates high
- Caused by purity monitors (see later)



- Two beam downtimes used for tests and studies

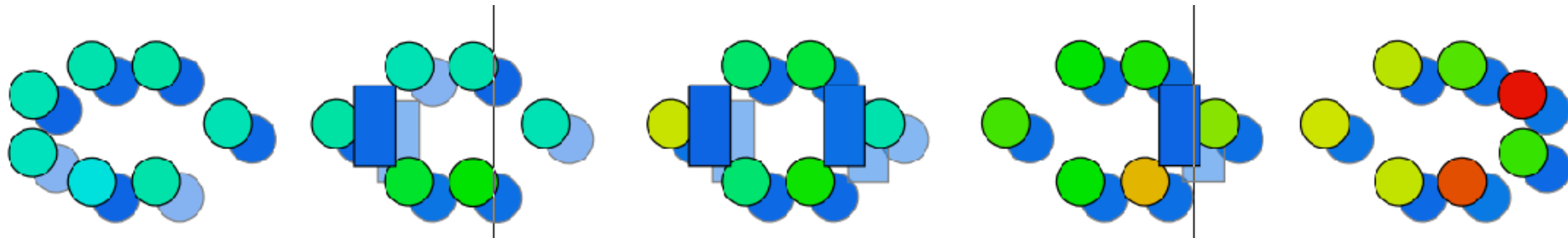
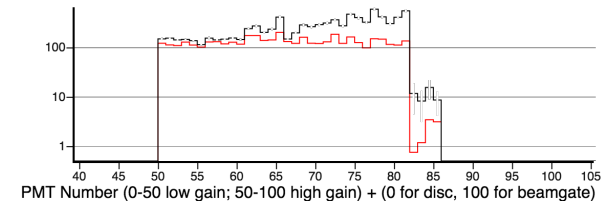
POT collected

- 96% POT-weighted DAQ uptime
- Rate has dropped since the NuMI/RR repair ☹️
- Still $\sim 1e19$ POT delivered/recorded this week 😊



Purity monitor issue

- As a test we increased the rate at which we measure the purity of our argon
 - To try to measure the degradation of the purity monitor photocathode
- We observed higher PMT rates which caused runs to crash more frequently
- PMT rates highest at the end with the monitor in question
 - And normal at the other end



Interpretation

- The purity monitors use a photocathode which is struck by light from a flashlamp outside the cathode
 - The light is directed using a quartz fibre
- The current working assumption is that light from this can be seen in the PMTs
- Only visible when the rate is set very high
 - Usually only run the purity monitors every 4 hours
- We are looking at possible solutions to this
 - Vetos, careful timing, less frequent measurements?

Other downtime work

- We had 2 almost full days of BNB down
- We used these for:
 - DAQ tests
 - Replacements of RAID array controller
 - Previously reported problem is hopefully now fixed
 - PMT/purity monitor debugging
 - Inspection/rebooting of primary DAQ machine