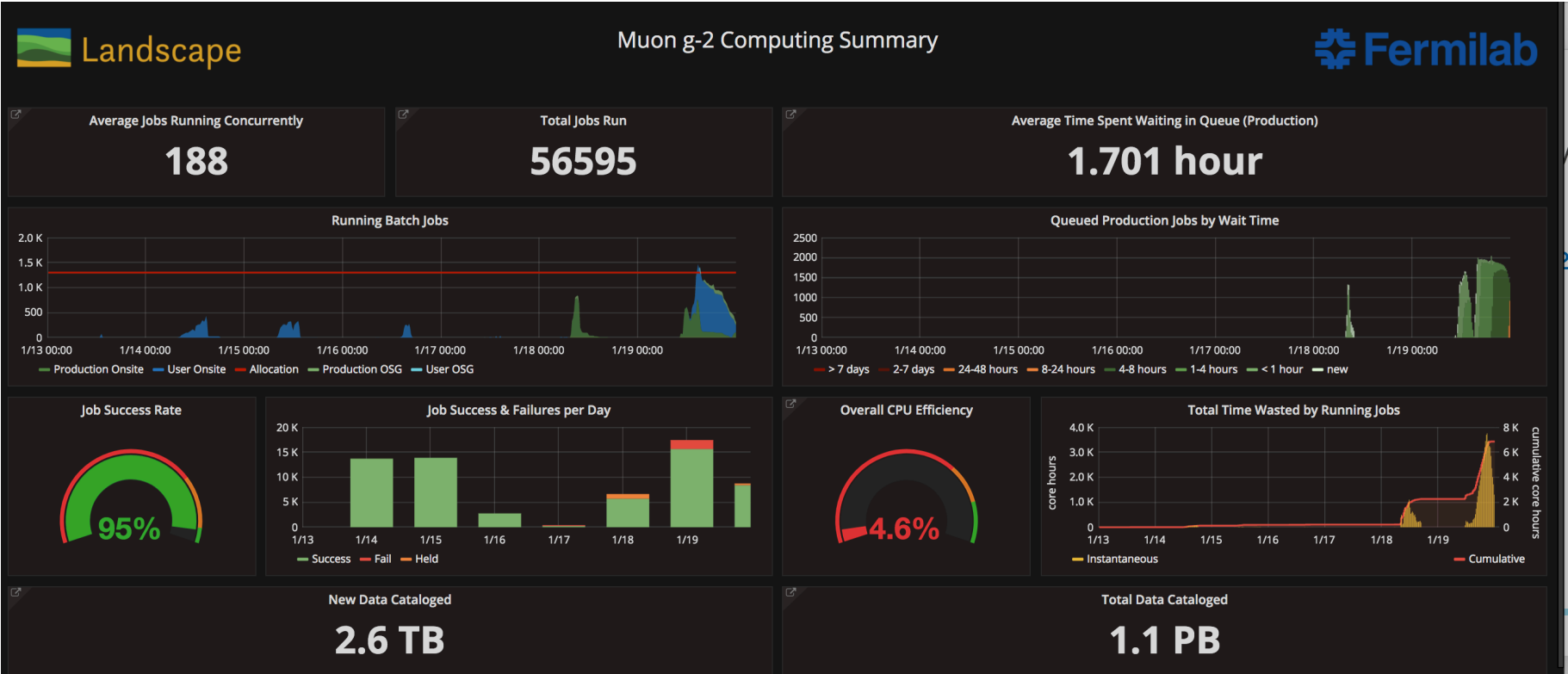


Muon $g-2$ BAM Update

Brendan Kiburg, Jarek Kasper

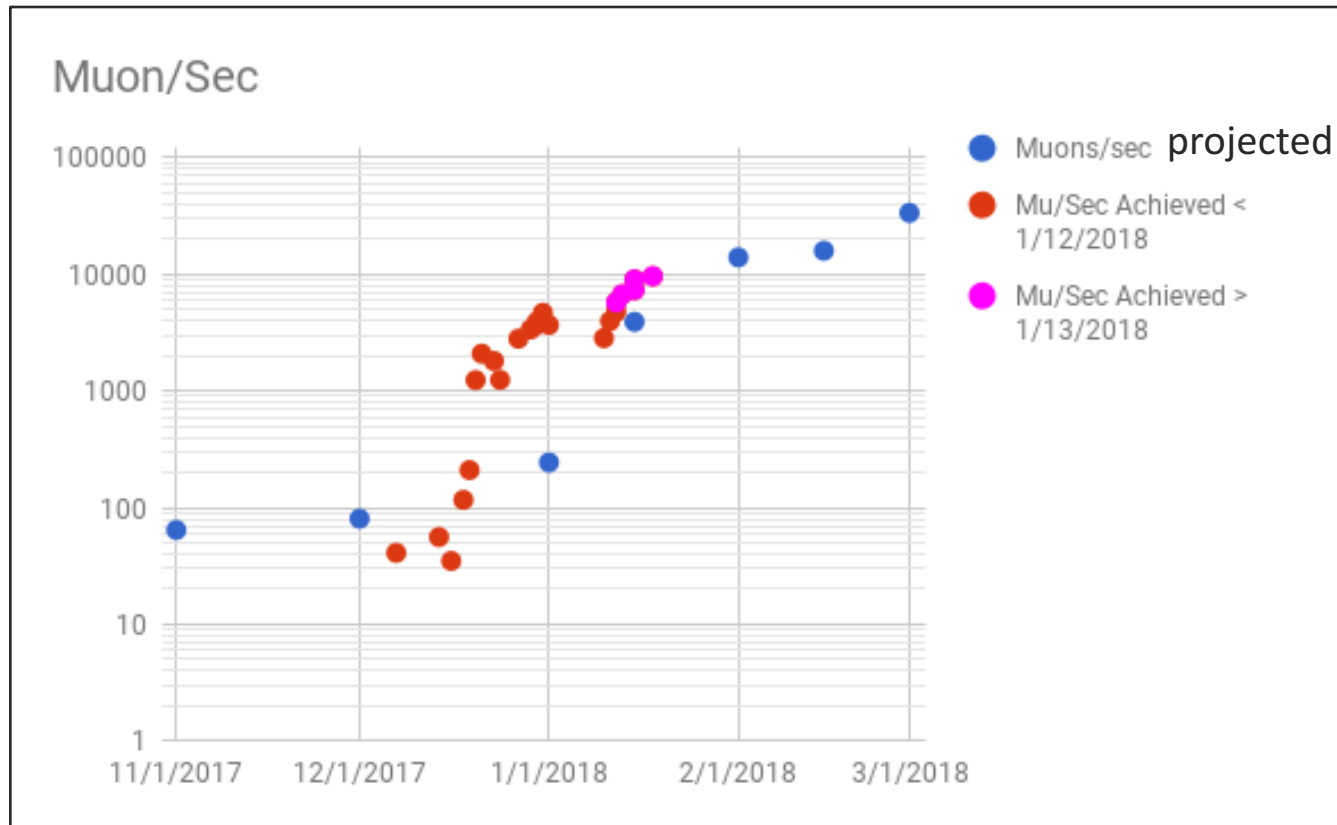
Jan 22, 2018

Computing summary



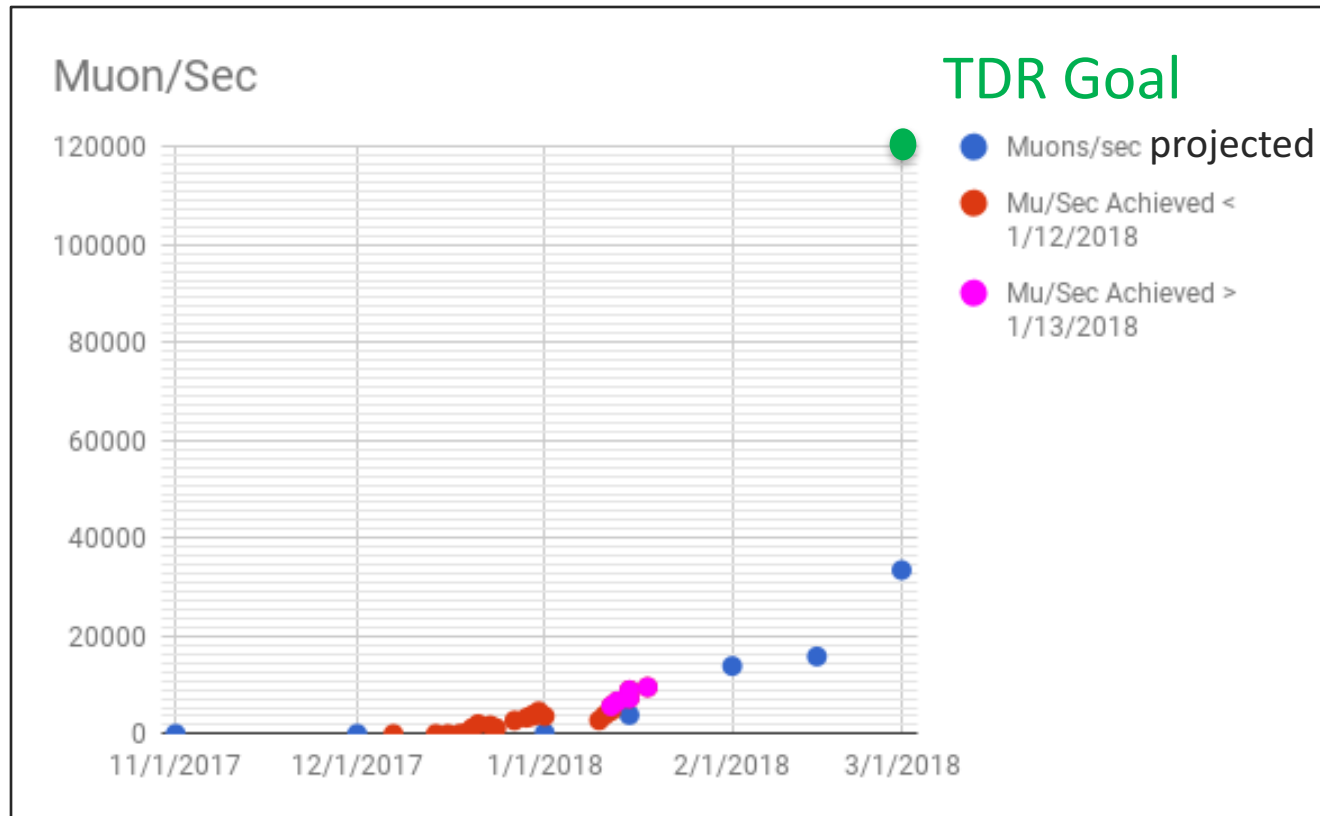
Muons/sec

- Achieved PEMP notable DOE goal of 5000 muons/sec on Jan 13, 2018.

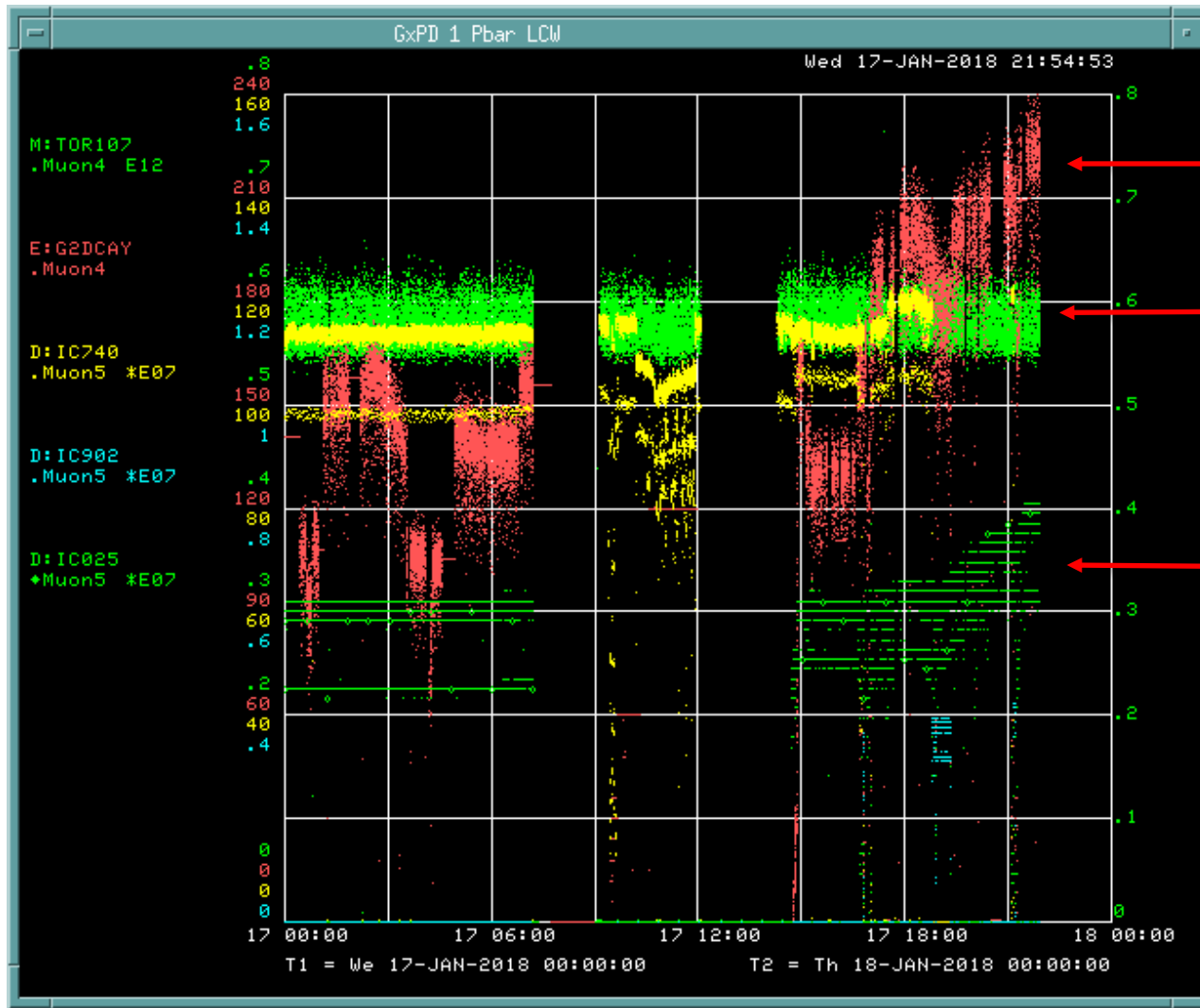


Muons/sec

- Up to 10,000 muons/sec now
- Tested 16 pulses / NUMI cycle \rightarrow 20,000 muons/sec
- Have a few planned improvements \rightarrow 30,000+ muon/sec within ~ 3 more weeks \rightarrow starting physics quality study

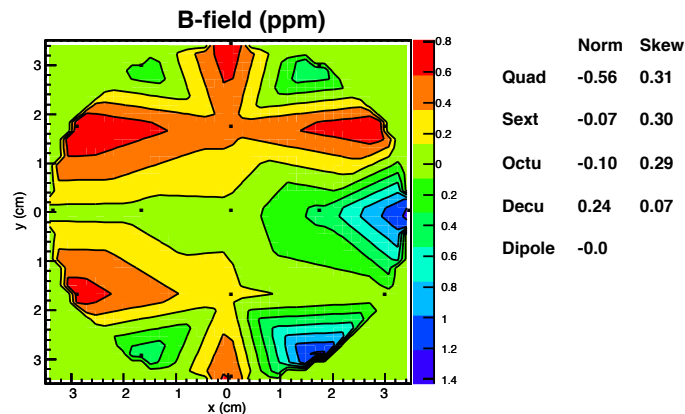


Useful Feedback for AD Beam Tuning

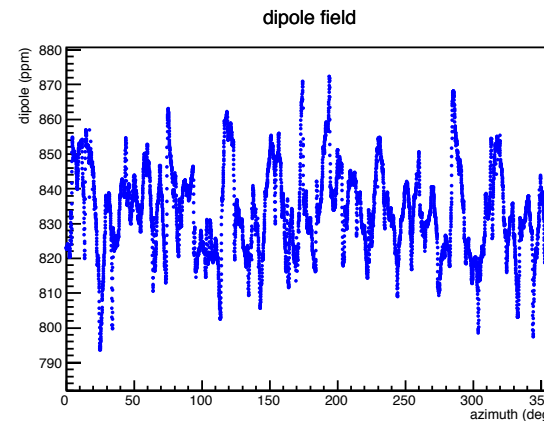


Experiment update Jan 12-22

- DAQ
 - Networking studies continue
- Field
 - Trolley Run Fri Jan 11th
 - Lots of systematics measurements on owl shifts
 - 3 recent trolley runs → produced feedback on cancelling multipoles



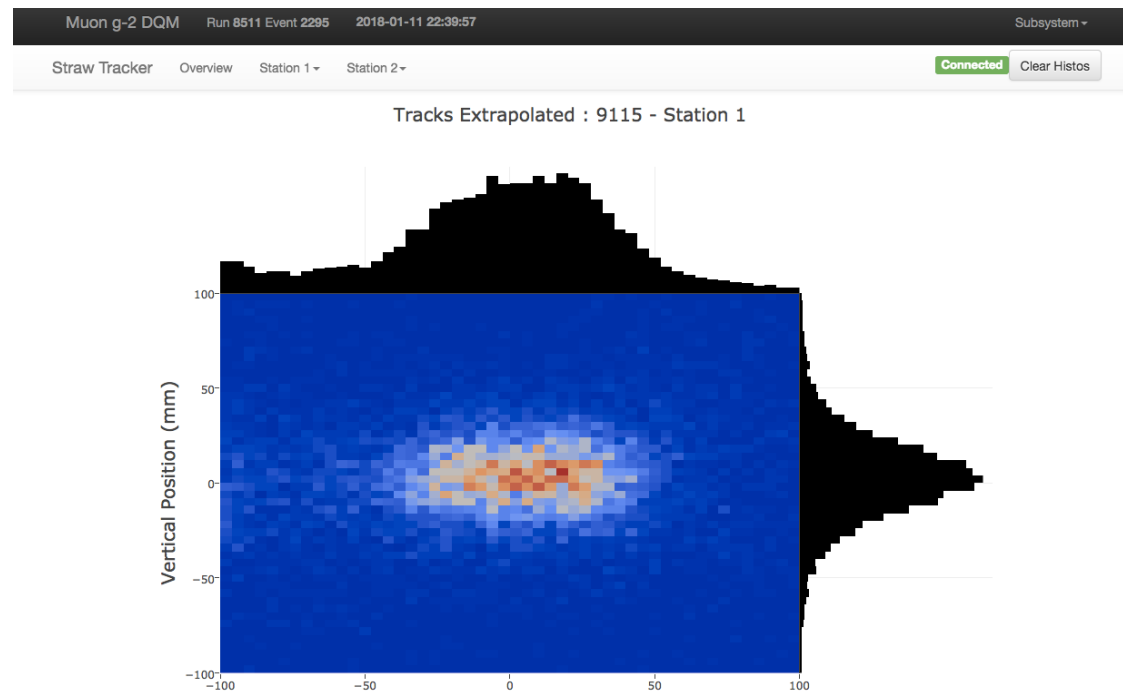
Goal : +/- 1 ppm in
4.5 cm radius circle



Goal : +/- 25 ppm
over 360 degrees

Experiment update Jan 12-22

- Ring
 - Running stably.
 - One inflector trip (first in 3 months) due to a drifting baseline problem on one of our quench detector monitors.
- Detectors
 - Tracker Gas system repaired. Some future updates needed. Trackers on argon ethane.
 - Beautiful online data quality monitor (DQM)



This week

- A few loose ends
 - Blind the clock (today)
 - Plunging Probe Installation (tomorrow). Last planned vacuum access.
 - Kicker pulse shape measurements
- Cryopumps (some delays in Dec/Jan due to other crises)
- Improve injection of beam
 - Great studies in progress
 - Continuation
- Planning a Production test run for late next week (exercise all systems, collect statistics, measure performance) → inform final weeks of tweaks/studies
- Targeting switching to production in early/mid Feb