



## **FAST Facility / IOTA**

### **Machine Report**

Daniel R. MacLean

AD-Ops Meeting

Friday, 0900

29-September-2023

# FAST / IOTA

- Recovered from Cryo thermal bump Monday evening, which has reportedly worked well to purify the system
  - John Wieland & I tuned-up all SRF cavities that night, beam re-established beam early Tuesday morning (see: [247857](#))
  - Some initial Cryo instabilities but these have settled-out since and everything now appears stable
- At this point, we are running roughly 24/7: trying to maximize efficiency while machine is stable & push to end of Run 4
  - Main factor in finalizing the end-of-run date is the IPI cable pull: once this date is known, we will set a hard stopping point
    - Need sufficient time to get enclosure de-posted to ODH-0 ahead of IPI installation
    - In communication w/Cryo personnel to arrange this once a solid end-date is established
  - IOTA150 crews rotating smoothly – *NIO, NIOLD, SETI, LADR*
  - NEB wrapping up their program in the LINAC – *mostly AM (0600 - 1200) shifts*
- ACNET / Erlang FE outages Thursday: generally painless
  - Minor issue w/initializing Synoptic applications via Index pages – *resolved & working fine now*
  - Big thanks to Adam Watts & Co. for communicating + assisting us in getting back up as smoothly as possible
- CC1 HLRF system is problematic again – *identical to issues seen back in July*
  - Consistently missing pulses / having partial RF fills, occasionally causes the cavity to trip on reflected power at the Coupler – *resets & comes back w/o issue*
  - Pattern is completely random, and the frequency at which this happens varies – *full-on trips tend to occur w/multiple bad fills in rapid succession*
  - Technically not holding us off, but does kill beam before it reaches the Cryomodule during bad pulses
  - Ding Sun is aware & investigating
  - See: [247936](#)