sPHENIX Status
RHIC Coordination Meeting

April 22nd, 2025

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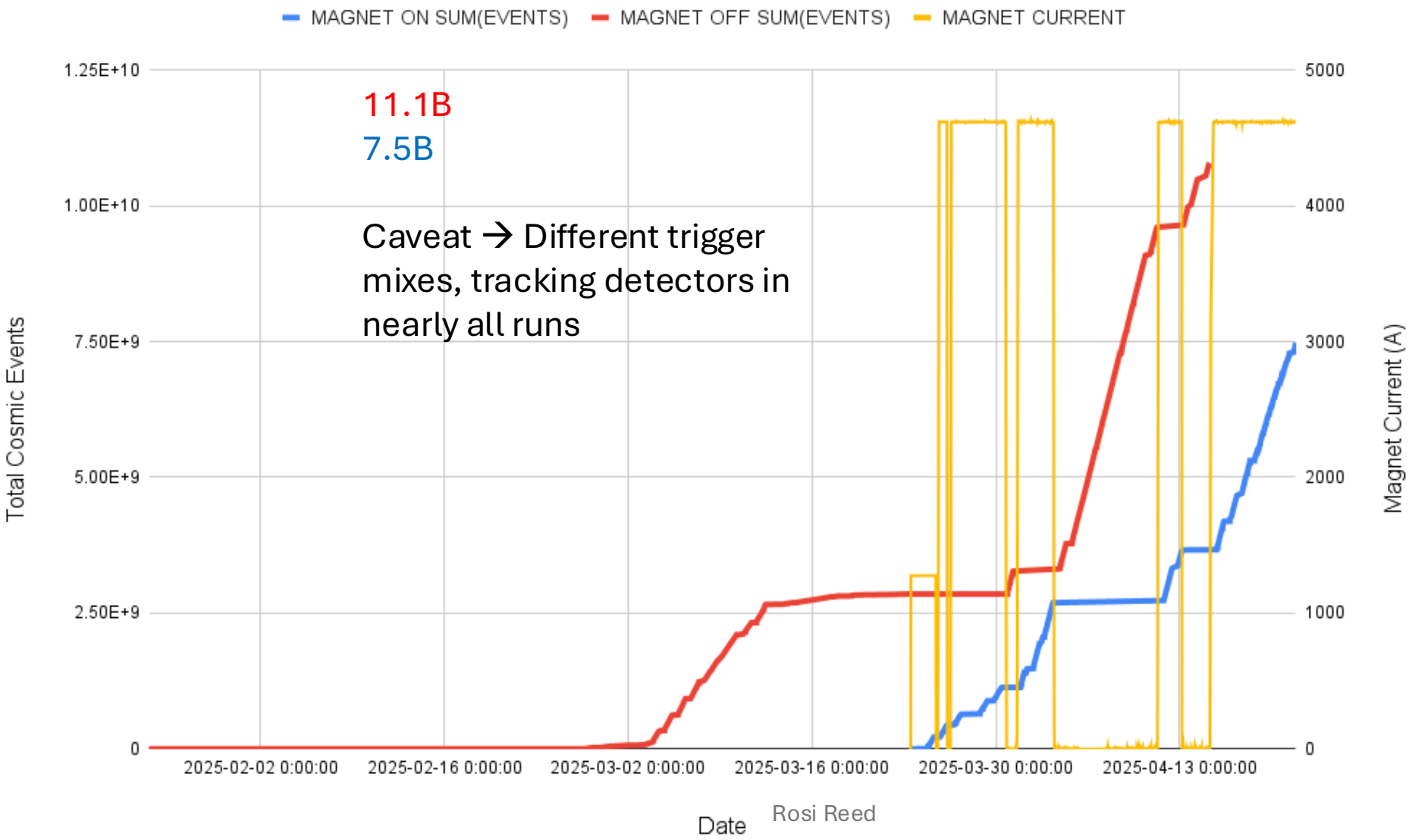
sPHENIX Cosmic Data Taking



Activities Since April 1st Coordination Meeting

- Philosophy was to complete summer tasks during this time period under the theory we would run during the summer
- MVTX: Updated slow controls software to latest version (match ALICE ITS)
- TPC: Solved CF4 gas contamination issue
  - FEE update to prevent wandering pedestal issue (reprogram SAMPA chip if fails) → Further update to improve power cycle+config time
  - GUI updates for shifter use including weather application
  - Aligned and threaded into TPC 4 out of 6 line lasers (2 more to go)
  - Repaired 2 diffuse laser boards (sent 1 laser for repair)
    - Diffuse laser now runs at low rate during cosmics

Activities Since April 1st Coordination Meeting

- EMCal: Calibration data used to gain balance calorimeter to account for radiation damage and lower operating temperature
- HCal: Hot tower reduction
- DAQ: Many updates to improve stability (due to required OS upgrade)
  - Push to run w/random triggers at 12 kHz this week
  - Much work has been done here, too much for one talk!
- INTT, TPOT, sEPD, ZDC, MBD, Donuts mostly chilaxing
  - Some MVTX, INTT cooling issues this weekend, awaiting expert return (today)
- Our liaison engineer has been working hard to coordinate with the water group and F&O to maintain the Electronic Cooling Water used for sPHENIX detectors and magnet

sPHENIX to-do before beam

- DAQ development → We could run today if needed, improving stability, ease of use and speed
- MVTX slow controls update nearly finished (< 1 week)
- TPC Digital current firmware update (~1-2 weeks)
- Automation for TPC line laser run for static distortion measurement (2 weeks)
  - Data will be recorded whenever there is no beam
- Test new TPC CF4 gas when it arrives (soon)

sPHENIX Collaboration is ready and eagerly waiting for beam to collect 7 nb^{-1} of Au+Au data