



sPHENIX Status RHIC Coordination

July 1st, 2025

Rosi Reed
Lehigh University
sPHENIX Run Coordinator

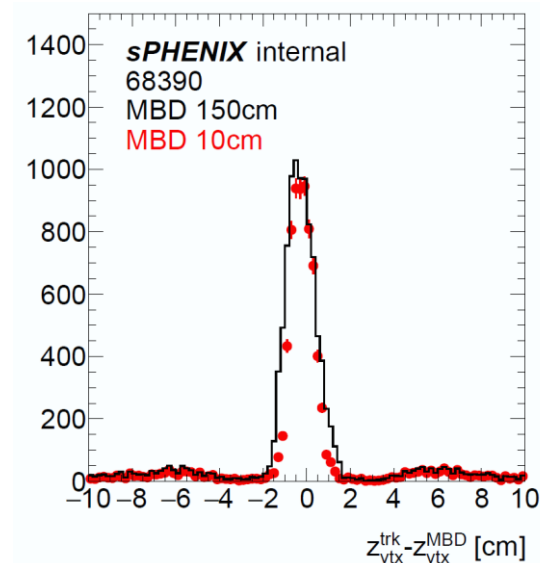
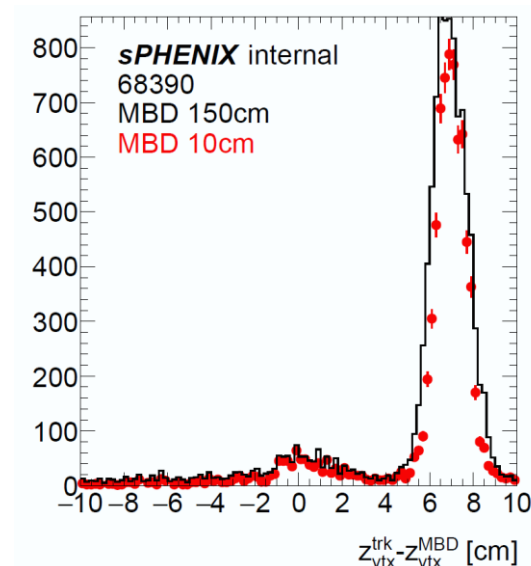
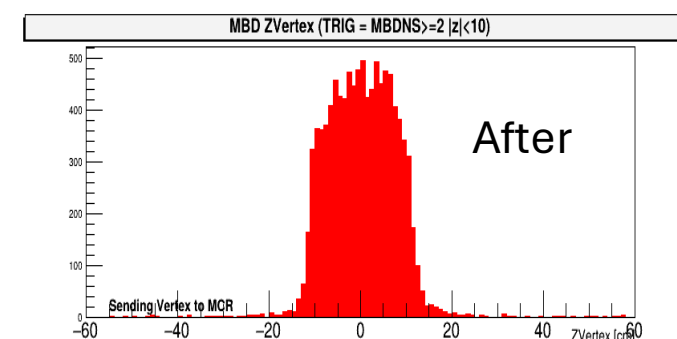
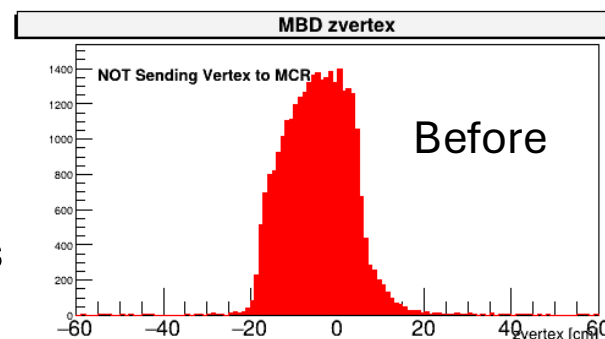


Ron Belmont
UNC Greensboro
sPHENIX Deputy Run Coordinator

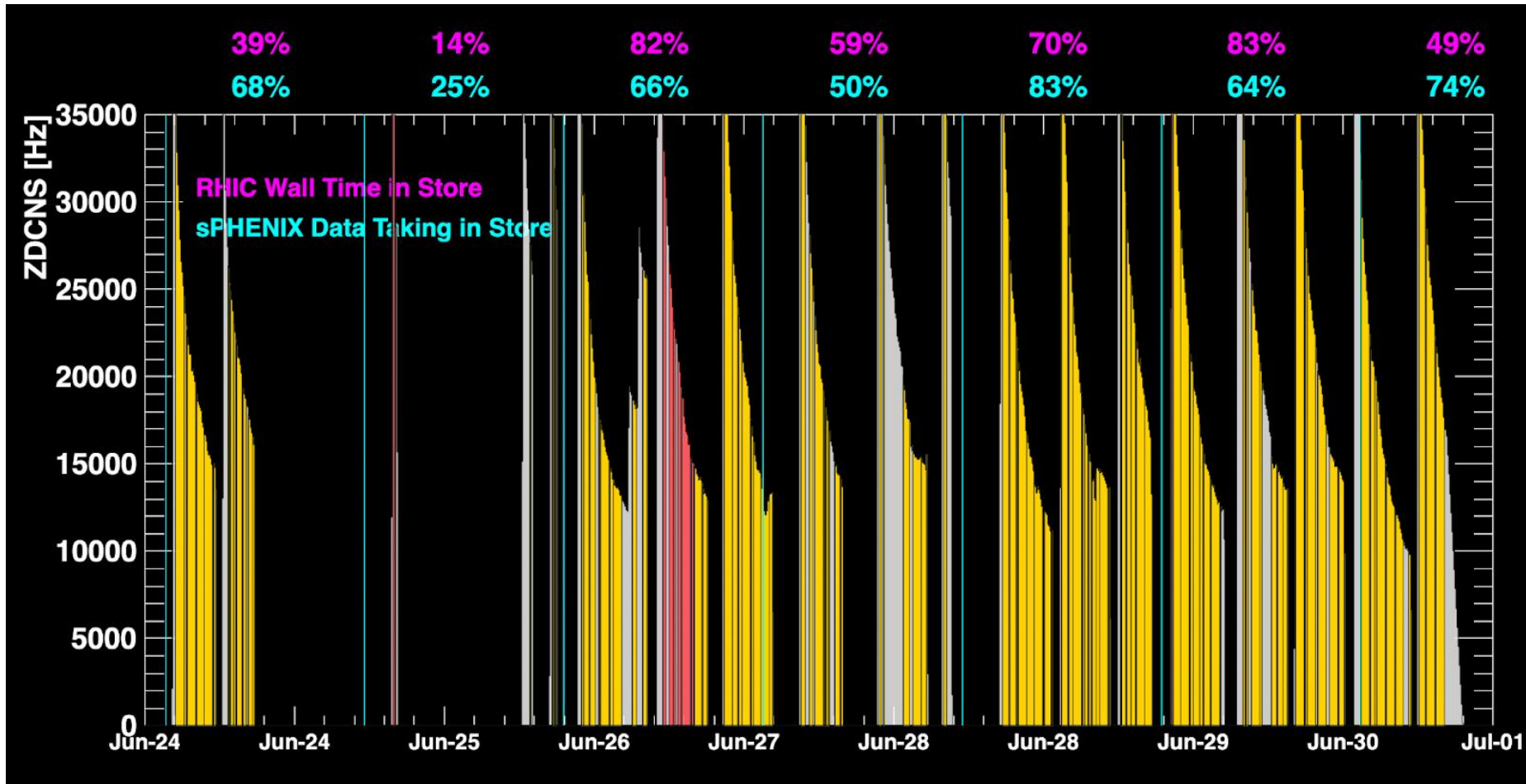


MBD Vertex “Issue” Solved

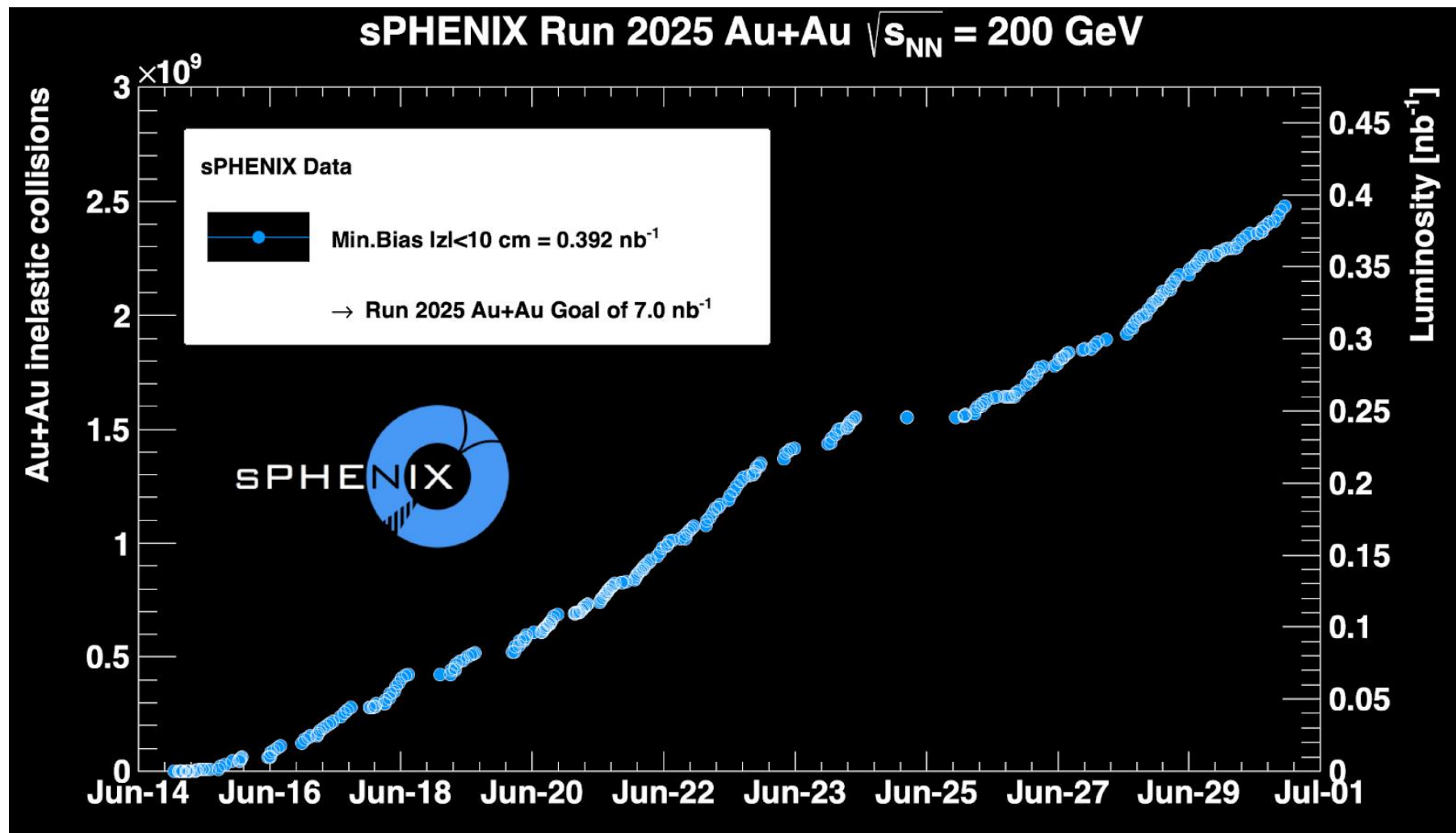
- Last Week ECW Failure caused a reboot of MBD Digitizer Rack
 - Running on only a single chiller → We always want to be on 2!
 - Waiting on BACnet cards to check status at 1008 without hiking over to 1008C
- MBD Vertex Distribution Changed
 - Online monitoring showed change of shape of the MBD Vz distribution
 - Disagreement between MBD Vz and Tracking Vz
 - Result of Calibration change
 - Fast tracking vertex production being developed
 - Diagnostics in place (and training of experts)
 - Recorded data is good as the tracking vertex is used for analysis
 - Slight inefficiency in terms of main physics trigger ($|V_z| < 10$ cm)



Wall Time and Up Time



Integrated Luminosity as of Yesterday

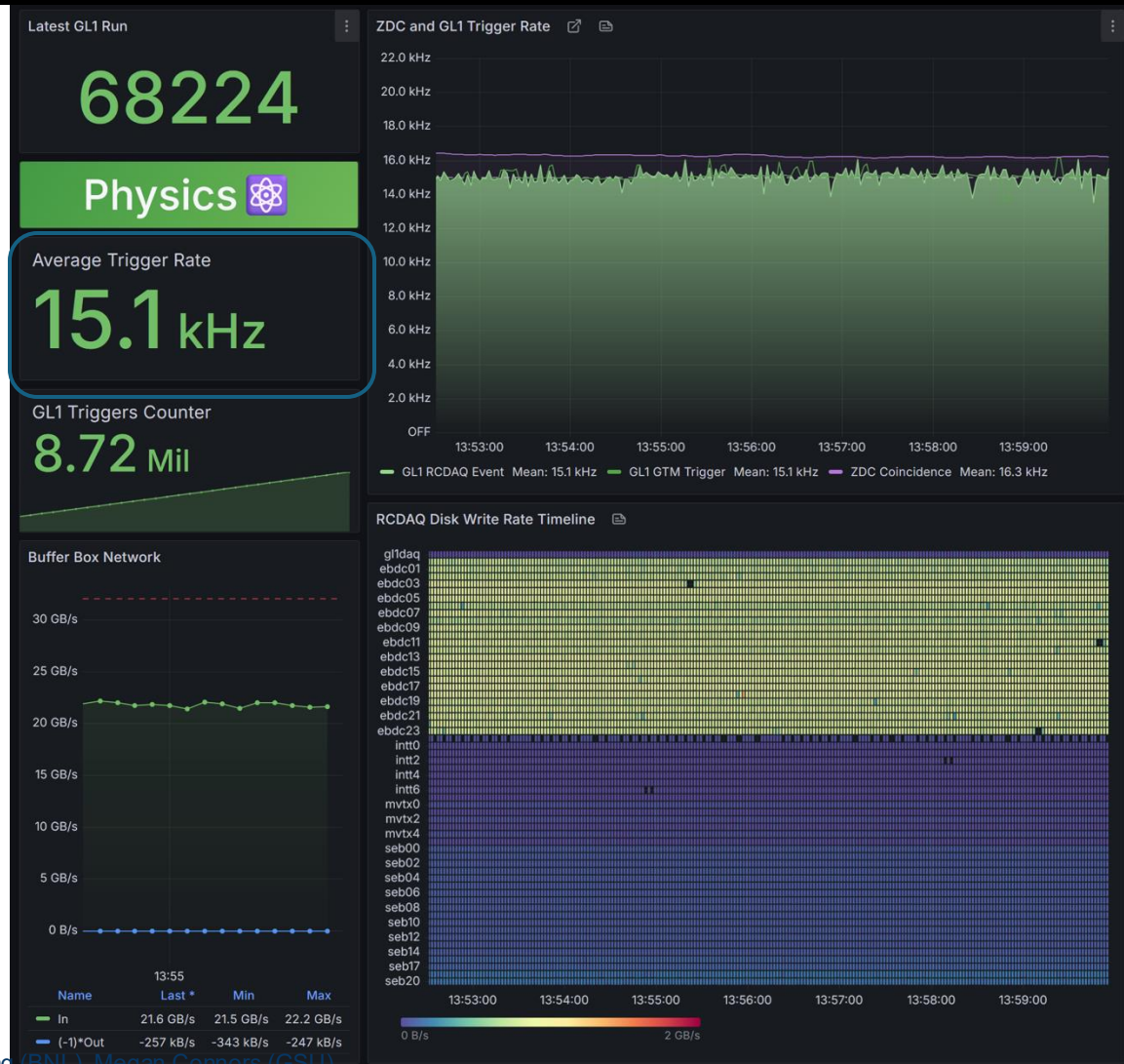


sPHENIX Demonstrates 1st 2025 UPP

Performance Goal	Verification	Prerequisites	Date
Data taking rate of 15 kHz for AuAu	Direct observation	-	2025

- Demonstrated 2025 UPP of “Data taking rate of 15kHz for Au+Au”
- Full system physics run including all sPHENIX subsystem, sustained stable running at 15.1kHz (until unexpected beam dump)
- Note: in nominal physics run, working point is tuned to maximize $|z| < 10\text{cm}$ MB events with varying trigger rate depending on RHIC lumi.

DOE-sPHENIX Quarterly Meeting



Trigger rate and Event rate 15kHz

TPC

Silicon

Calo.

Jin Huang (BNL), Megan Connors (GSU)