Run 25 Status
RHIC Coordination

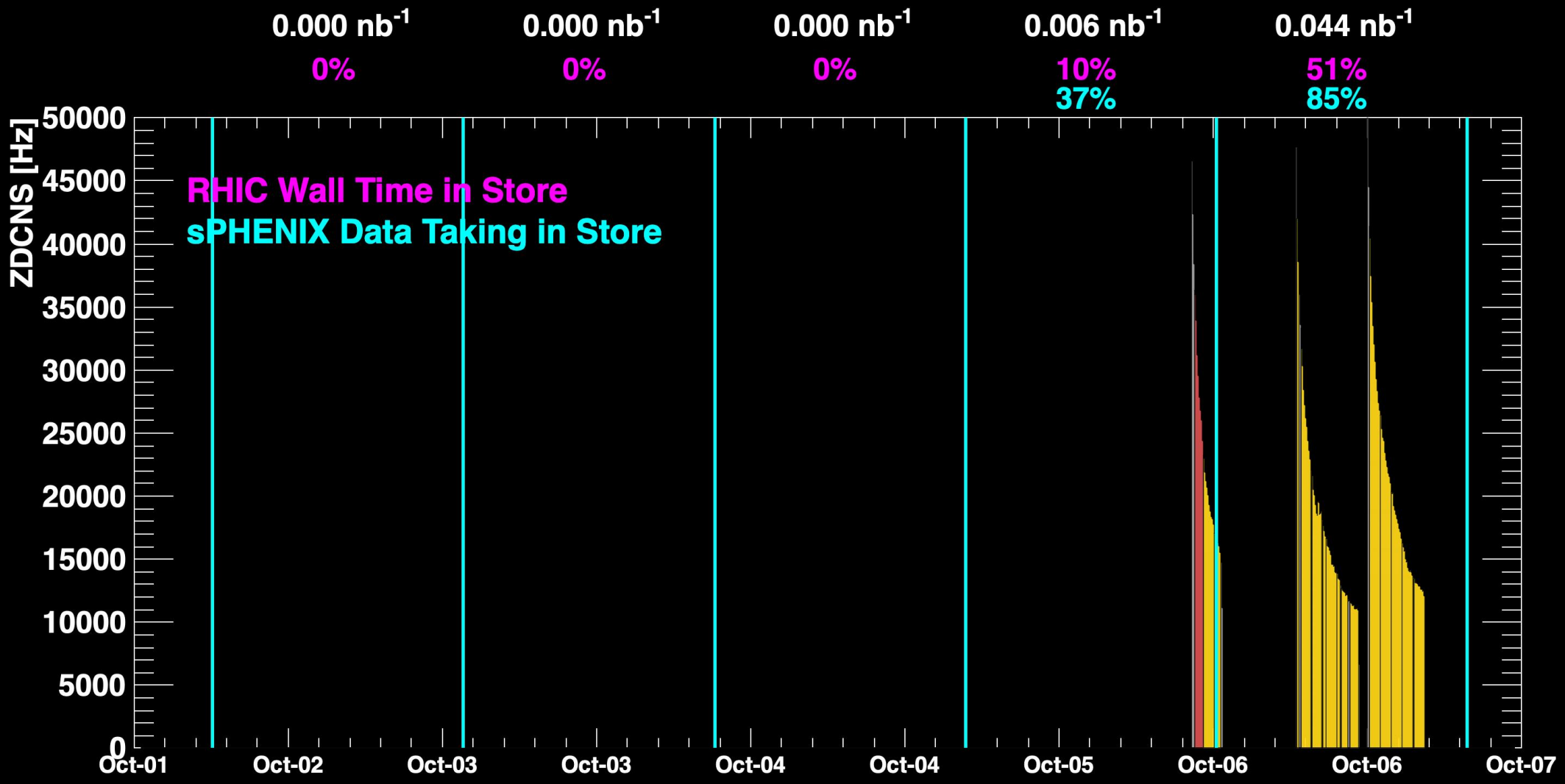
October 7th, 2025

Rosi Reed
Lehigh University
sPHENIX Run Coordinator

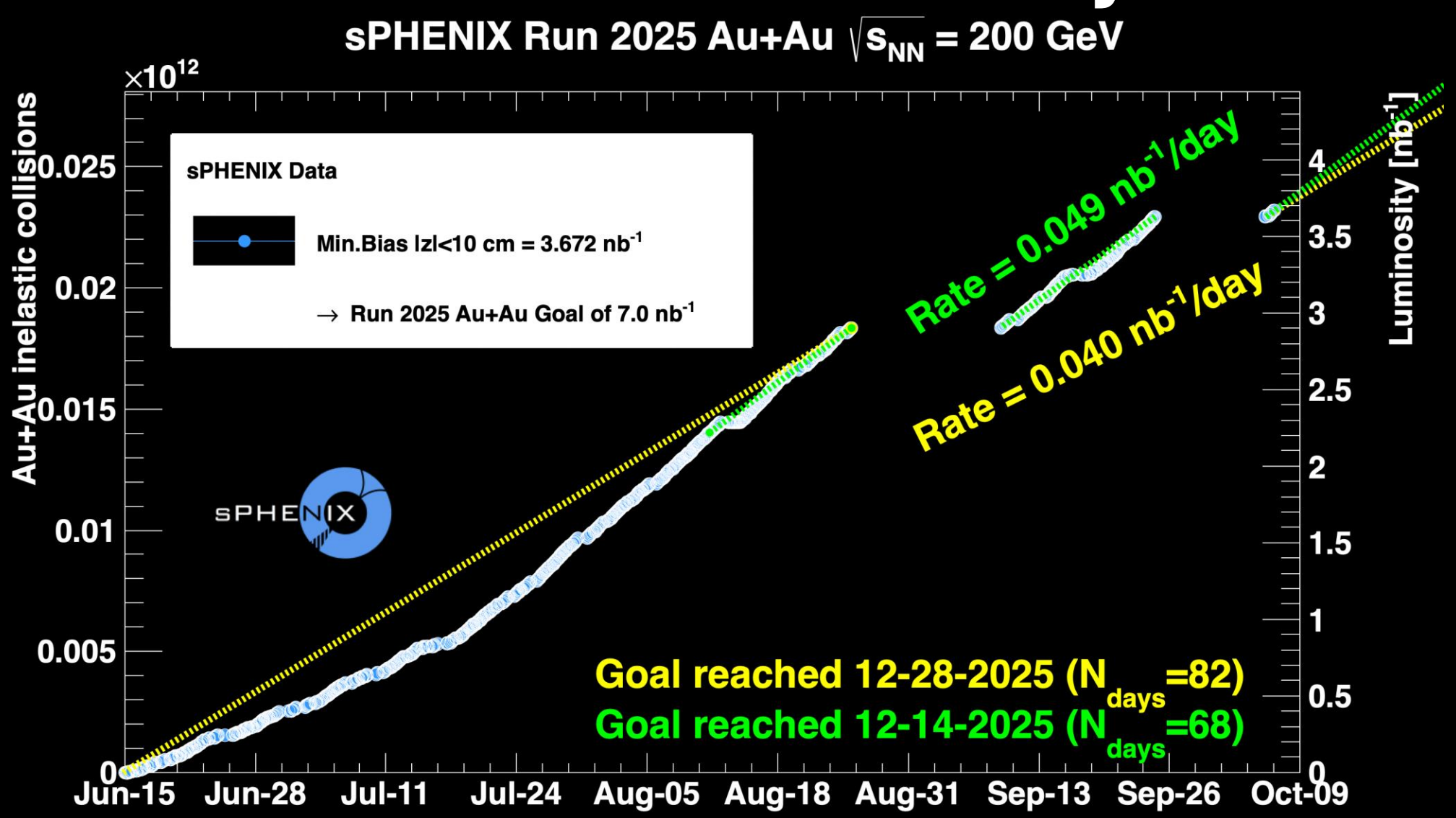
Ron Belmont
UNC Greensboro
sPHENIX Deputy Run Coordinator

sPHENIX Wall Time

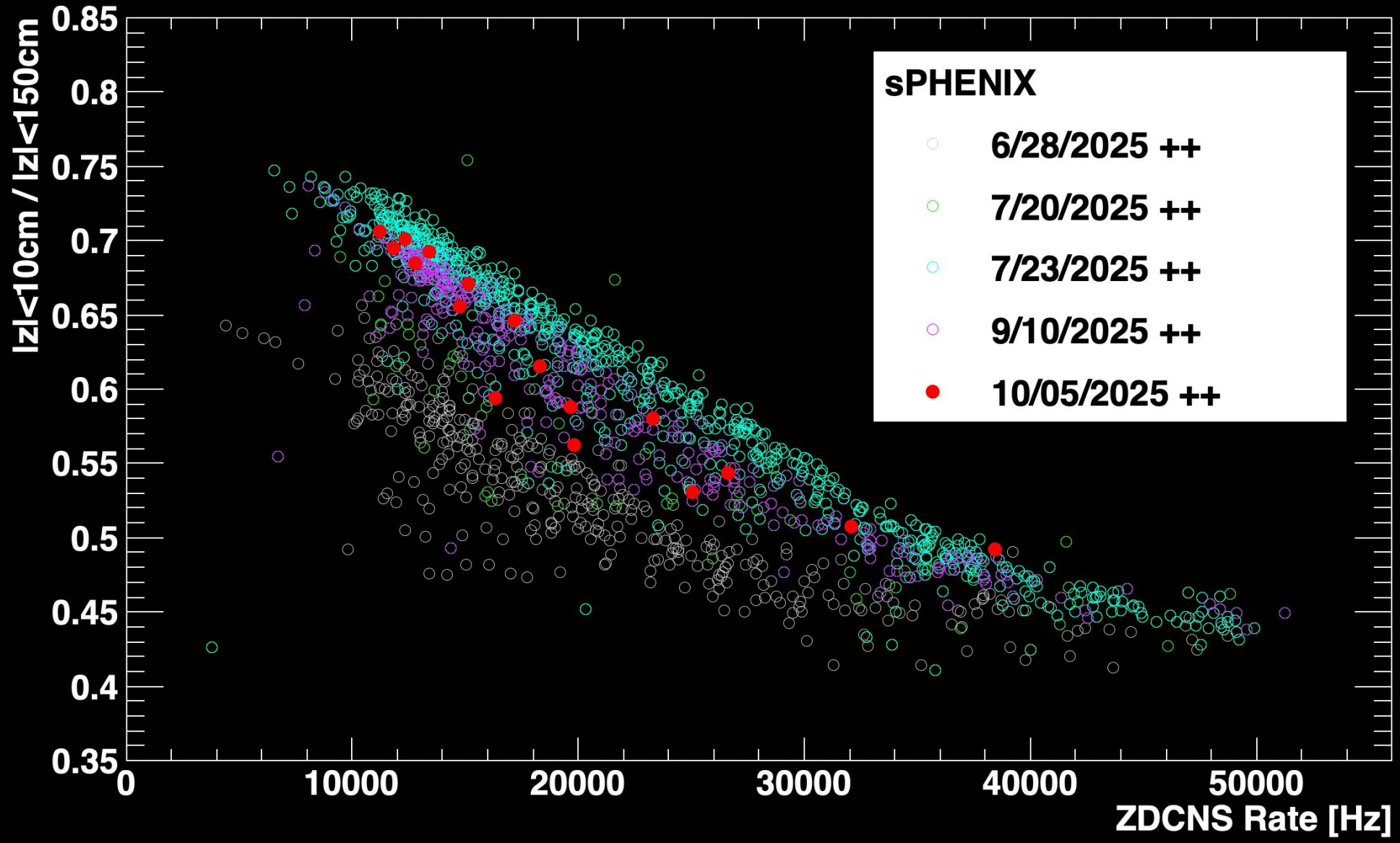
85% October 6!



sPHENIX Luminosity



sPHENIX Trigger Ratios



sPHENIX Activities

- We are at 52.5% of our Au+Au goal of 7 nb^{-1}
  - Estimate for reaching goal is Dec 14th – Dec 28th
- TPC CDU repairs and updates completed (96 hours without incident)
  - Swapped water and changed additives
  - Replaced “muffler”
  - Reinstalled firmware
  - Added diagnostic cameras
  - Spare CDU is up and running (~1 week swap, so last resort)

- Ice had formed on the current leads of the sPHENIX Magnet, and it was found that both heaters were broken
  - Heaters were then replaced by the Cryo Group (Thank you!)
- We are still interested in a magnet off (and on) 6x6 run when convenient (other “special” runs will only involve different sPHENIX configurations)
  - Would 7x7 be easier?

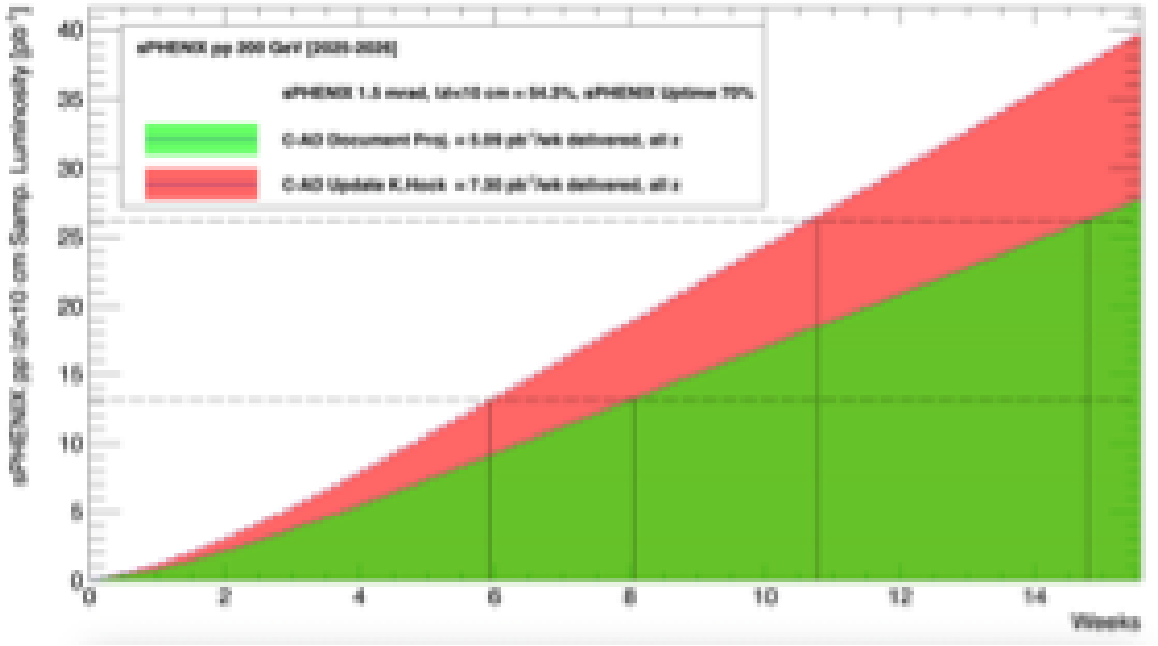
Retirement Party
Steve Boose, Mike Lenz, Jimmy La Bounty

We celebrated the retirement of three of the hardest working individuals in sPHENIX
We'd like to thank C-AD for the additional tech help

Beyond 7 nb^{-1} Au+Au

- Top priority for the PAC Request is for a p+p sampled integrated luminosity within |z| < 10 cm of 26 pb^{-1}
  - Transversely-polarized
  - Achievable in ~12 cryo-weeks of time (includes switchover and setup)
  - Will enable the complete Upsilon and beauty-tagged physics program
  - Crucial additional statistics for jet substructure and open heavy flavor measurements
  - Will improve systematic uncertainty with a p+p/Au+Au data set with the same detector configuration

BUP Report



Run-24: 13 pb^{-1} was sampled by the full sPHENIX detector within |*z*| < 10 cm (~1/3 of the goal)
Only 2.9 pb^{-1} was collected in tracker-only streaming mode (~2/3 of the goal)