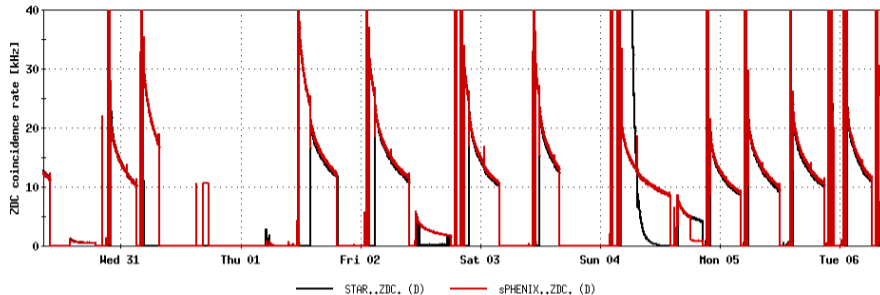


# RHIC Status

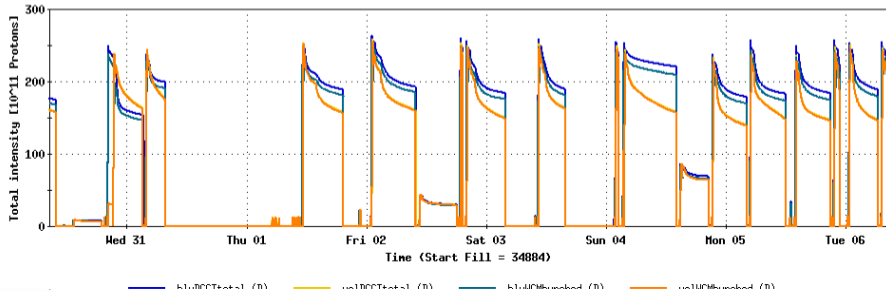
Kiel Hock

July 23, 2024

# Last Week at RHIC

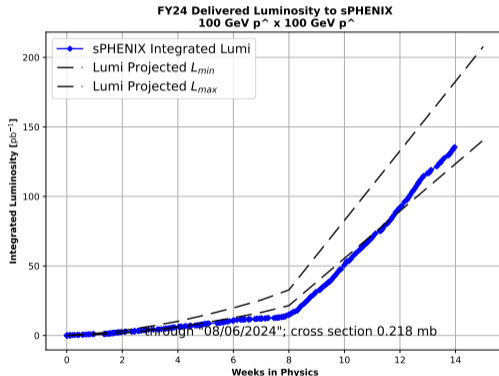
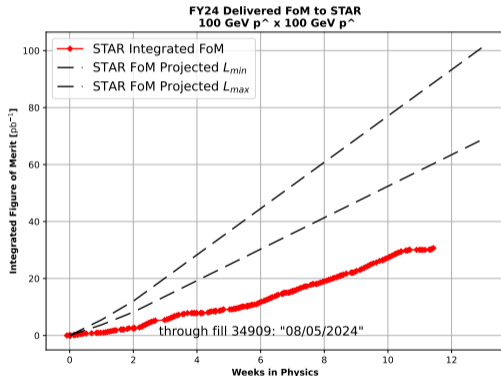


RHIC Bean Intensity



# RHIC status and Lumi Projections

111x111 physics running since 4/30. Preliminary luminosity accounting

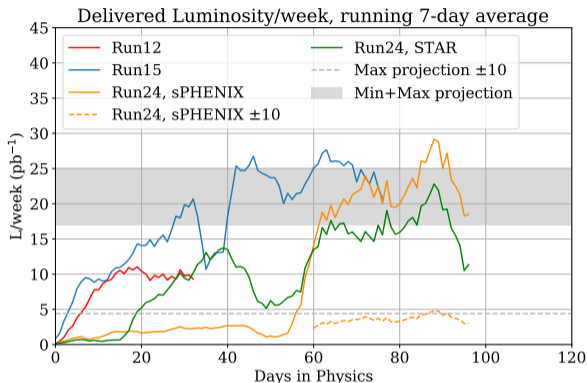


NaNs reported by CNI polarimeter causing artificial plateau on FOM.

# RHIC Status

- Delivered intensity up to  $2.3 \times 10^{11}$  at physics.
- STAR and sPHENIX operating with 0 mrad crossing angles
- sPHENIX isobutane introduced on 7/27
  - ▶ 6x6, 28x28 and 56x56 stores delivered for testing of TPC
  - ▶ testing with +1.5 mrad crossing angle
- Delivered polarization is up to 60%
- Power dip on 7/31 and 8/1
  - ▶ additional recovery of systems from severe power dip on 7/29
- Severe weather standown on 8/3
- Fill 34892 was unpolarized due to AGS warm snake PS issue
  - ▶ Peak delivered luminosity of  $115 \text{ pb}^{-1}$
- PASS Division A processor for sector 6 replaced on 8/03
- STAR MCW chiller was down on 8/3-8/4 due to a shorted condenser fan

# RHIC Performance



- $L_{max}, L_{min} = 25, 17.0 \text{ pb}^{-1}/\text{week}$  with  $\theta = 0 \text{ mrad}$
- STAR's low luminosity run shown for first two weeks
- Trajectories as of this meeting:  $L_{STAR,proj} = 12.8 \text{ pb}^{-1}/\text{week}$ ,  $L_{sPHENIX,proj} = 19.3 \text{ pb}^{-1}/\text{week}$
- Reduced Luminosity due to reduced availability in the last week.

# Going Forward

After sPHENIX TPC is available for full physics running

1. MD session to establish collisions at the desired crossing angle at the start of store (this will free up an additional ramp if the collapse of STAR occurs at the same time as sPHENIX, allowing)
2. MD session to commission  $\beta^*$  squeeze at IP8

## Notes

- Will look to do DX training at convenient times ahead of Au running to optimize its startup time
- DX training is also needed for a majority of remaining APEXs