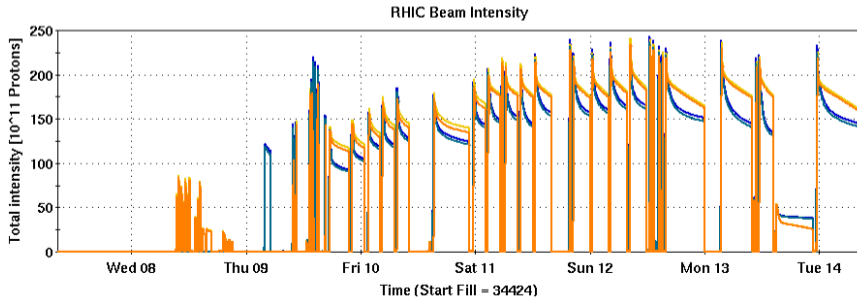
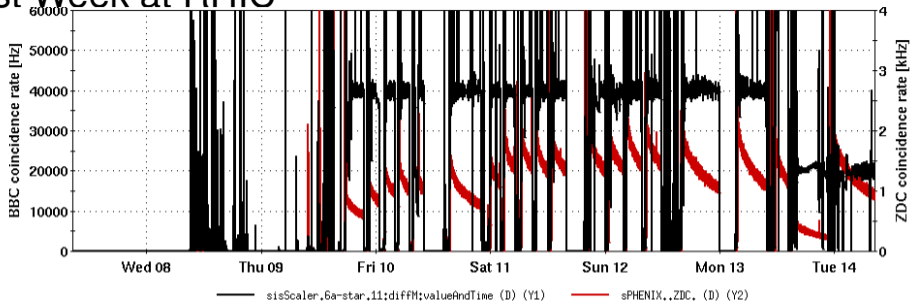


# RHIC Status

Kiel Hock

May 7, 2024

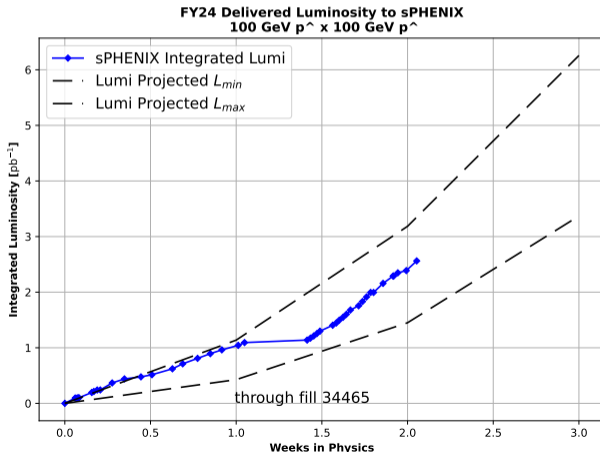
# Last Week at RHIC



# RHIC status and Lumi Projections

- / Injected intensity up to  $1.9 \times 10^{11}$ /bunch at store
- / STAR low luminosity run continues

Preliminary luminosity accounting



# RHIC Status

MD Today to diagnose emittance growth

- / Ramp with 28x28 bunches yesterday yielded lower emittance growth, indicating electron clouds persist despite vacuum improvements
- / Ramp with lowered tunes to get further away from nest of higher order resonance conditions
- / Repeat low bunch ramp with lower octupole strength
- / Ramp with different octupole strengths to better quantify their effect (8/ 4/ 0)

MD setup and optimization of rotator ramp (after 5/15).

MD for IP8 beta squeeze after emittances are normal

# Physics Checkpoints

- $\beta$  squeeze at IP8
- 1.0e11 protons per bunch @physics
- complete low-luminosity run for STAR
- sPHENIX running with nominal store conditions
- 1.7e11 protons per bunch @physics (Run12 maximum)
- 2.0e11 protons per bunch @physics
- 2.4e11 protons per bunch @physics (Run15 maximum)
- switch to alternate AGS setup
- 2.5e11 protons per bunch @physics
- 3.0e11 protons per bunch @physics