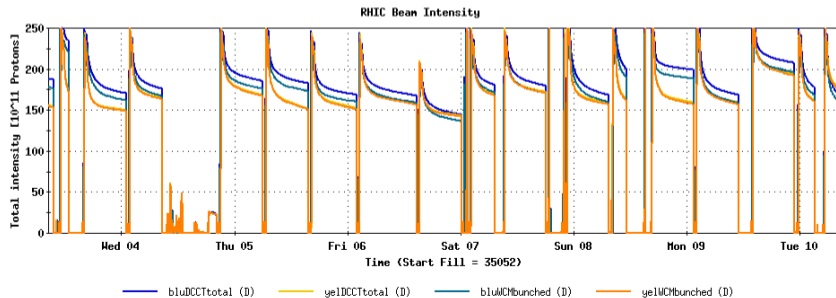
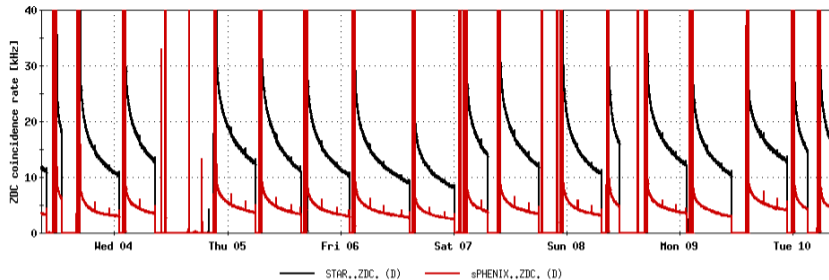


RHIC Status

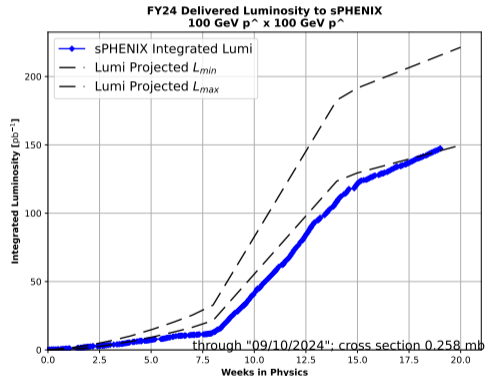
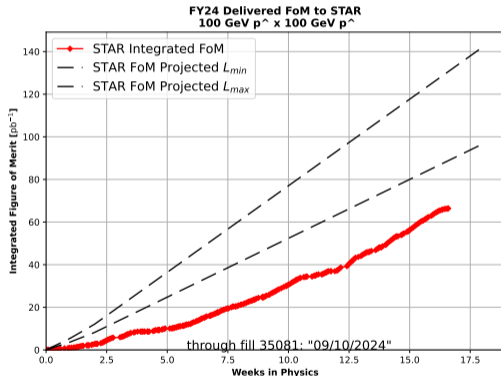
Kiel Hock

Last Week at RHIC



RHIC status and Lumi Projections

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



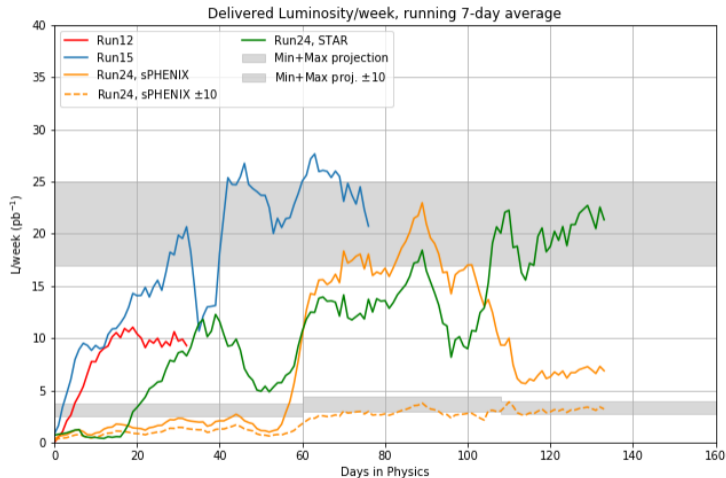
Inflection for sPHENIX projections coincides with change in crossing angle.

RHIC Status

- Physics running with up to 2.3×10^{11} /bunch at physics and up to 55% polarization.
- OPPIS issues last week caused the Rb to be overfilled resulting in lower polarization.
 - ▶ Found helium valve was not opening fully and was repaired.
- Issues yellow polarization measurements at injection causing permit trips. Switched to new target.
- Several QLIs in blue over the weekend.
- RHIC status meeting switched to Monday, Wednesday, and Friday until switch to Au.

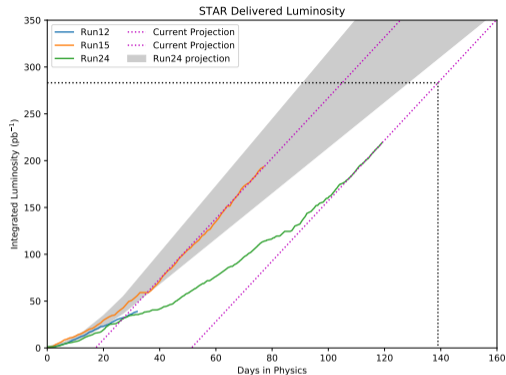
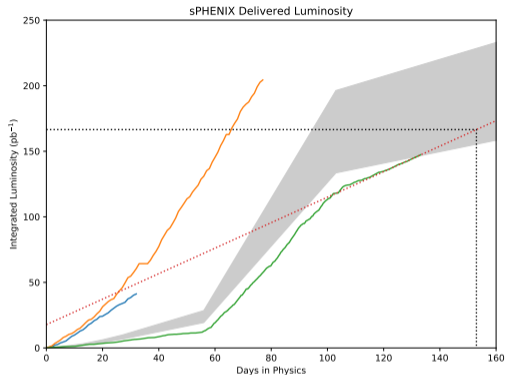
| Key dates | Event |
|---|----------------------------------|
| April 15, 2024 through September 30, 2024 | RHIC polarized proton operations |
| September 30, 2024 through October 21, 2024 | RHIC Au operations |
| October 21, 2024 | End of RHIC Run24 |

RHIC Performance



Both STAR and sPHENIX are within the minimum and maximum projected window.

RHIC Performance II



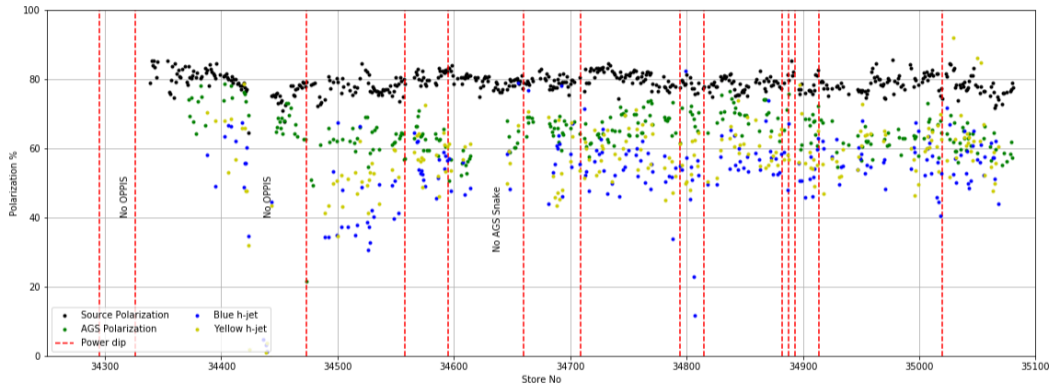
- Projections holding steady over last 3 weeks
- STAR projections currently on trend with Run15, $22.6 \text{ pb}^{-1}/\text{week}$
- sPHENIX projections are currently at $6.8 \text{ pb}^{-1}/\text{week}$ which is $\sim 3.4 \text{ pb}^{-1}/\text{week}$ within $\pm 10 \text{ cm}$

Based on current projections by 9/30:

STAR will have 283 pb^{-1} delivered luminosity and 83 pb^{-1} FOM .

sPHENIX will have 166 pb^{-1} delivered luminosity and 50 pb^{-1} within 10 cm .

Polarization Performance



From the last 14 stores, $P_{blue, jet}=56\%$, $P_{yellow, jet}=60\%$, $P_{blue, CNI}=48\%$, $P_{yellow, CNI}=51\%$
Recent drop in source polarization due to excess Rb.

h-jet values from: <https://www.cnipol.bnl.gov/hjet/run24.html>

cni values from: <https://www.cnipol.bnl.gov/fills/?rp=24&fn=&ft=&be=100&mode=11&sb>Select>

Au Startup Schedule, tentative

| Day(s) | Objective |
|--------|--|
| 1 | Maintenance +DX training, injection setup during the evening, RF conditioning overnight |
| 2 | ramp development during day, RF conditioning overnight |
| 3 | rebucket setup and store development, possibly more RF conditioning if we cannot hand over physics store |
| 4 | finish setup and hand store over for experimenter setup |
| 5-8 | ramp up and start setting up stochastic cooling 1 plane/store |
| 7+ | week of, look to setup 56 MHz |

Start date 9/30.