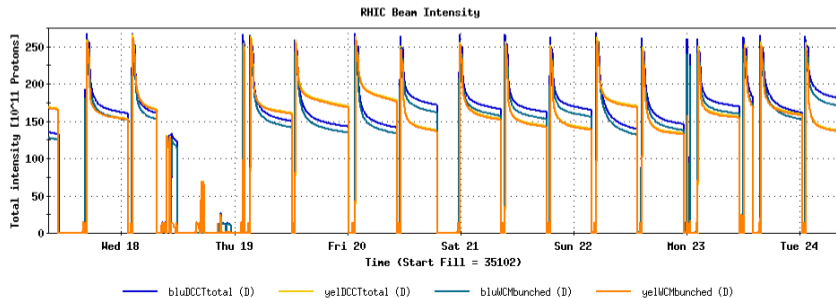
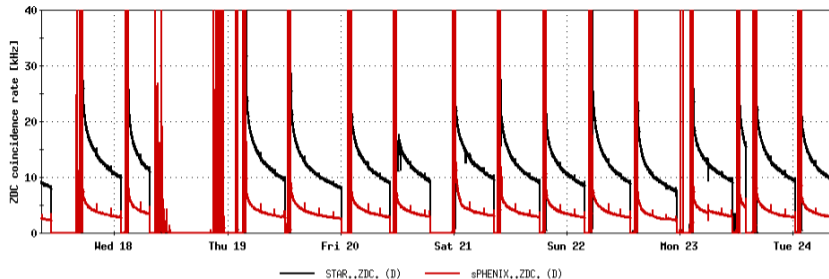


RHIC Status

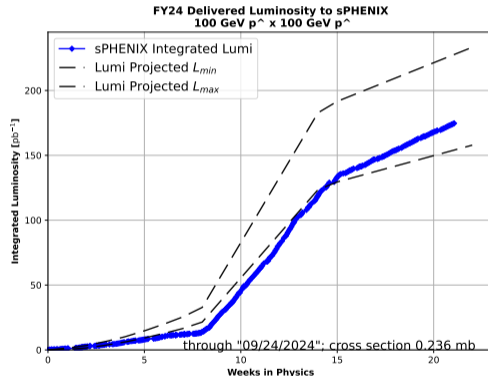
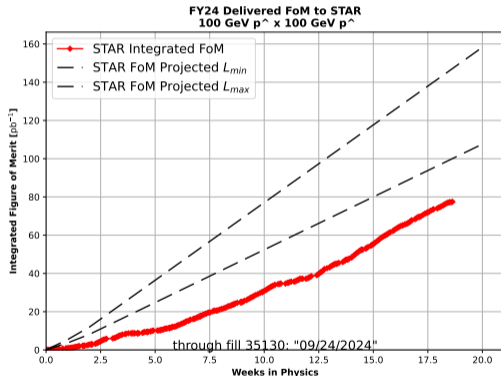
Kiel Hock

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 2.4×10^{11} /bunch at physics and up to 60% polarization.
- sPHENIX MVTX cooling issues has prompted several accesses to investigate, implement a temporary repair and a permanent repair. Resolved on 09/19.
- 9/20 Access to sPHENIX IR to repair a failed switch on an equipment rack.
- 9/21 Elevated sPHENIX backgrounds on 2x stores, resolved with adjusting orbits and collimation.
- 9/22 Access to Booster to repair MW006
- 9/22 Blue QLI at injection due to momentary glitch.
- RHIC status meeting everyday next week.

Key dates

Event

April 15, 2024 through September 30, 2024

RHIC polarized proton operations

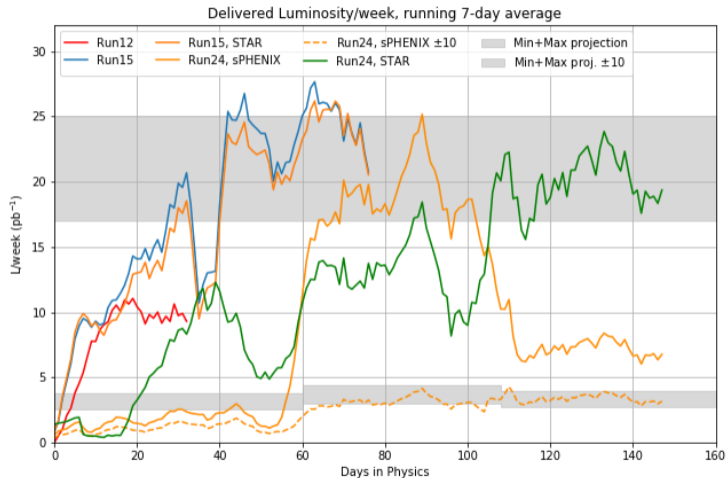
September 30, 2024 through October 21, 2024

RHIC Au operations

October 21, 2024

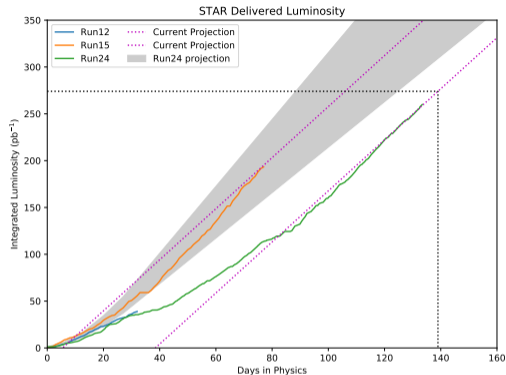
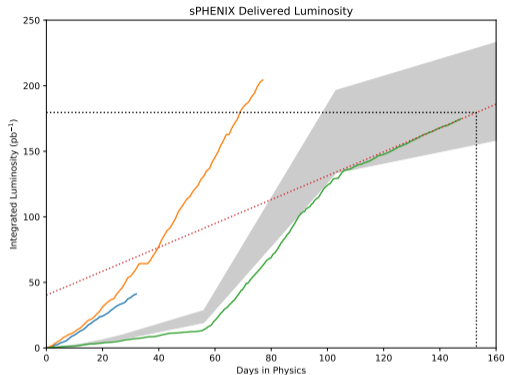
End of RHIC Run24

RHIC Performance



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

RHIC Performance II



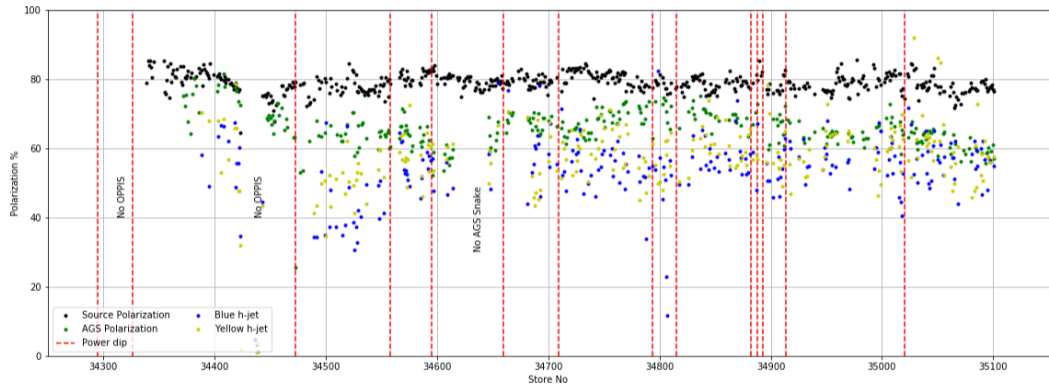
- Projections slightly lower than previous 3 weeks
- STAR projections currently on trend with Run15, $19.1 \text{ pb}^{-1}/\text{week}$
- sPHENIX projections are currently at $6.4 \text{ pb}^{-1}/\text{week}$ which is $\sim 3.2 \text{ pb}^{-1}/\text{week}$ within $\pm 10 \text{ cm}$

Based on current projections by 9/30:

STAR will have 274 pb^{-1} delivered luminosity and 83 pb^{-1} FOM.

sPHENIX will have 179 pb^{-1} delivered luminosity and 54 pb^{-1} within 10 cm .

Polarization Performance



Recent drop in source polarization due to excess Rb, recovered slightly. Injector polarization did not rebound.

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
9/30	Maintenance, injection setup during the evening, RF conditioning overnight
10/1	DX Training+High current shutoff, ramp development during evening, RF conditioning overnight
10/2	rebucket setup and store development, possibly more RF conditioning more development needed
10/3	finish setup and hand store over for experimenter setup
10/4-10/8	ramp up and start setting up stochastic cooling 1 plane/store
10/7+	week of, look to setup 56 MHz (1-4 shifts required)

Start date 9/30.

IR6 and IR8 access available during DX training+High current shutoff

Startup schedule is available [here](#)