

RHIC Run24 Preparations

Kiel Hock

February 20, 2024

RHIC schedule

Key dates

January 8, 2024

Week of February 20, 2024

Week of February 20, 2024

March 12, 2024

April 1, through April 5, 2024

April 15, 2024 through October 14, 2024

Event

Booster on for NSRL

Complete AGS Checkout

Start AGS setup

approximate cold snake ready

RHIC dry run

RHIC run (26 weeks)

RHIC startup schedule is [here](#), by T. Shrey.

RHIC run schedule is [here](#), by C. Giorgio.

RHIC run webpage is [here](#), by K. Hock.

RHIC Preparations

$\beta^*=60$ cm lattice Dynamic Aperture simulations look good:

- Analysis of DX aperture indicates a (-) crossing angle is still required.
- Squeezing 3 hours into store will provide a 21% increase in luminosity.
- 60 cm necessitates reaching 2.5×10^{11} protons/bunch

Overview of AGS setups:

1. Standard setup with jump quads
2. Booster merge split+AGS bunch merge
3. Two LINAC pulses+AGS bunch merge
4. Skew quad commissioning (and possible combinations with setups 2+3)

Meeting next week to discuss:

- DA simulation results for $\beta^*=85$ cm, 60 cm, and 50 cm lattices
- Aperture analysis of $\beta^*=85$ cm, 60 cm, and 50 cm lattices