



RHIC Run24 Preparations

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RHIC Coordination Meeting December 5, 2023

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Overview of Major Works, updates

RHIC start date still expected to be no earlier than March 3, 2024.

- Valve box and DX repair
 - DX expected to be reinstalled mid December
- Blue snake reinstall
 - Readiness expected to be confirmed this week.
- Diode removal and testing. New diode installed and hi-pot successful.
- RHIC ASE update process underway.
 - Although scrubbing does not require the ASE change, the visual and audible ODH alarms in 1008B must be in place.
 - Scrub still expected to start early January.
- All AGS skew quad magnets have been received. First PS expected this week.



RHIC Run Preparations

- Lattice development is underway with zero DX shifts (GRD).
 - Preliminary design has $\beta^*=50$ cm.
 - Luminosity expectations with this lattice communicated to sPHENIX.
 - -2 mrad crossing angle needed to maximize clearance through the DX aperture. This will require the polarity of the D0 shunt supply to be reversed.
- Beam-beam effects with crossing angle simulations (X. Gu and Y. Luo).
 - Preliminary results show significant tune shift suppression from crossing angles.
- Dynamic aperture simulations with crossing angle simulations (X. Gu and Y. Luo).

