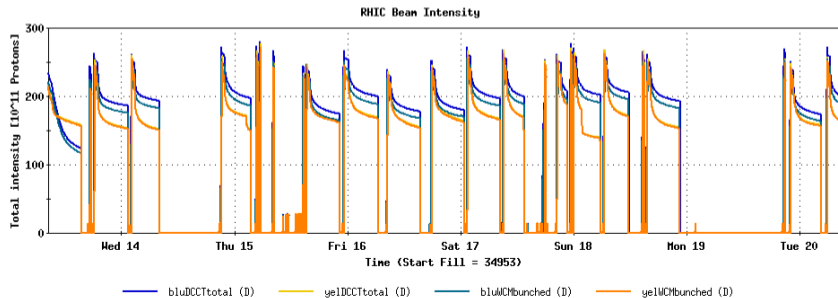
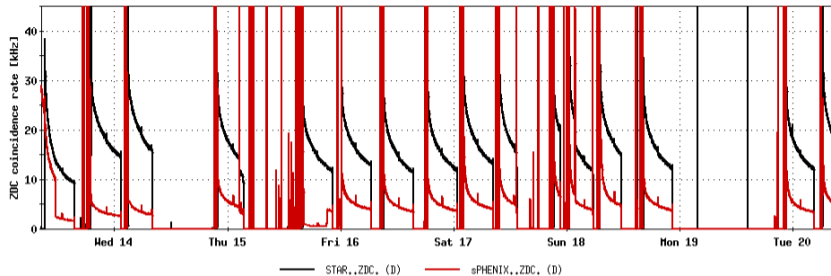


RHIC Status

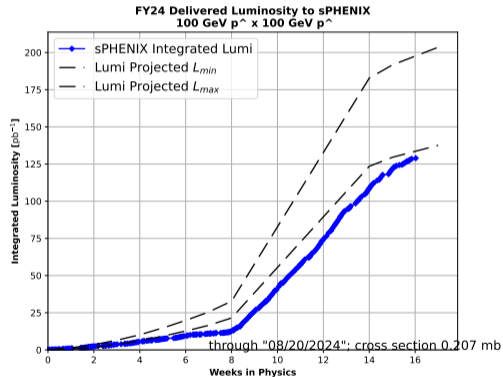
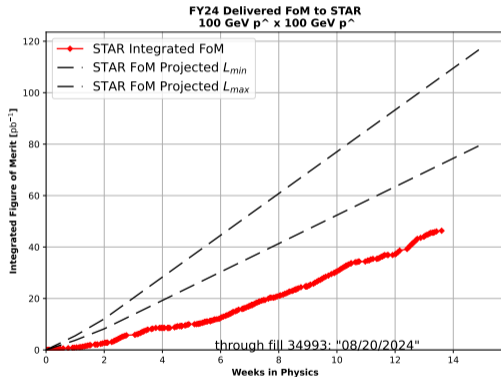
Kiel Hock

Last Week at RHIC



RHIC status and Lumi Projections

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

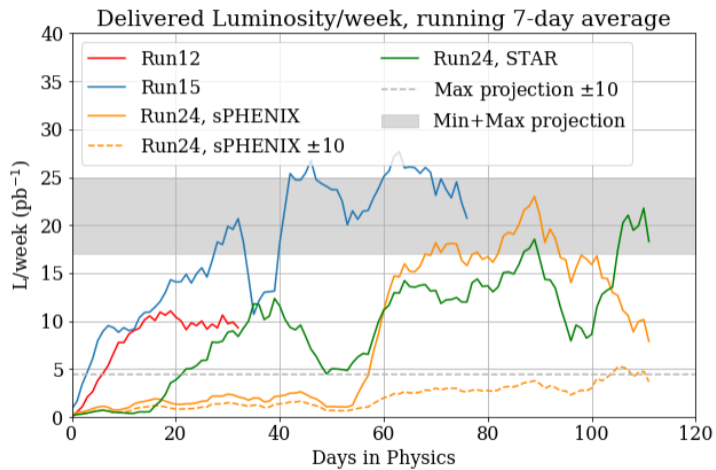


Inflection for sPHENIX projections coincides with change in crossing angle.

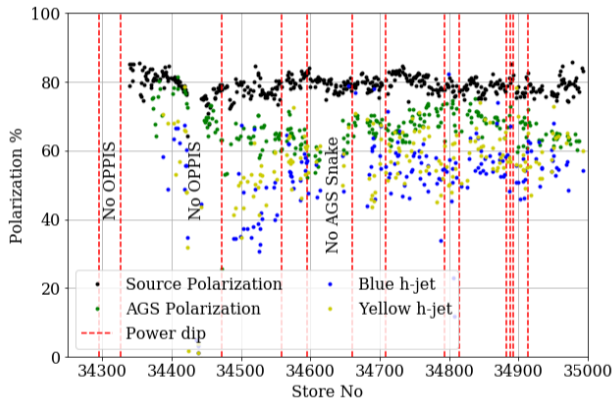
RHIC Status

- Delivered intensity up to 2.5×10^{11} at physics with polarization up to 55%.
- Due to improved lumi lifetime, store length increased from 6 to 8 hours.
- sPHENIX and STAR operating at 1.5 mrad and 0 mrad. STAR and sPHENIX being brought into collisions almost concurrently.
- Vernier scan on 8/13 for STAR and sPHENIX
- Maintenance on 8/14
- MD on 8/15 to work on bringing sPHENIX into collisions at 1.5 mrad.
- AGS tunemeter
 - ▶ charging PS failed, shared between horizontal and vertical supply.
 - ▶ replacement received last week. Repairs still ongoing.
- YS2 tripping at store.
 - ▶ Loss of Landau cavity resulted in longitudinal instabilities and potential damage to sPHENIX detector.
 - ▶ Update to firmware to provide HL trip input to permit system. Tested and implemented as of 8/19.
- Severe weather 8/18 into 8/19
 - ▶ Water intrusion into IP6 and PASS UPS
 - ▶ Extended downtime, recovered ~ 1800 on 8/19

RHIC Performance



Polarization Performance



Power dips early in the run greatly affected availability of PP

Of the last 100 stores, $P_{blue} = 55\%$ and $P_{yellow} = 59\%$

Of the last 10 stores, $P_{blue} = 56\%$ and $P_{yellow} = 61\%$

Going Forward

Notes

- MD to commission beta squeeze likely at 3 hours or 1.5×10^{11} /bunch
- an instability in RHIC at injection has necessitated detuning booster to AGS phase (ongoing)
- Losses at rebucketing are currently below the threshold
- With initial DX training complete, we should look to finish during Au setup
- Will work with T. Shrey to develop the Au startup schedule.