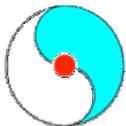




Run-6 Preparation & Run Plan

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Time and Scheduling Meeting





PHENIX about to be ready!

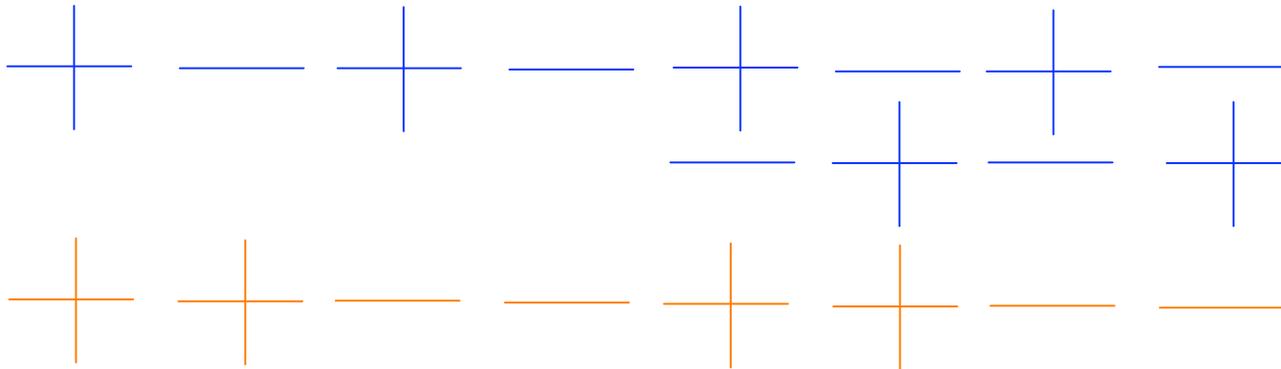
- Today's access:
 - BBC expected finally back in business after the Christmas shower
 - Other smaller issues related to Aerogel Detector, MPC cabling etc. being fixed
- Other than that, DAQ development work in full swing led by John Haggerty
- All subsystem experts are now at BNL, checking their respective subsystems for stability, operation and pedestals where necessary
- PHENIX 5 person regular shifts have begun today
- Data writing and archiving issues being fixed, tested, and improved
- PHENIX will be ready to take data middle/late this week
- All finer adjustments and improvement in efficiencies, final settings of the trigger thresholds etc. beyond that stage will need nights with continuous collisions

Spin Patterns

- In PHENIX ERT boards, the even and odd bunch crossings are addressed by two different circuits (historical). The efficiency of these two circuits is different at the level of $\sim 1\%$. This causes false asymmetries which were observed for the first time in Run-5 when we filled more than 56 bunches (in fact, very clear when we went to 110+ bunches).
- Hardware fix of this not possible in reasonable time scales
- The fix is: treat the odd and even bunch crossings separately
 - **But this puts conditions on the spin pattern especially for the Single Spin Asymmetry physics**
 - **This was presented to STAR and RHIC Spin collaboration on February 10, 2006 as a proposal by Kieran Boyle**

Recommendation

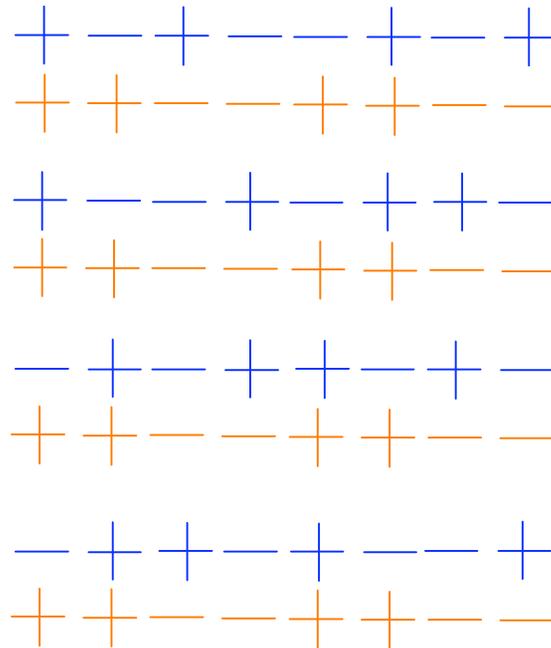
- A simple solution is to change the spin pattern



- This should not increase systematic uncertainty for other triggers (or other experiments).

Variations

- Here are 4 possible variations of the proposed scheme:
(there can be four more keeping the yellow the same and changing the blue in a pattern)



PHENIX run plan

- **4 weeks** of transverse radial scattering at 200 GeV CM for first exploration of *Sivers effect using back-to-back di-pion* correlations
 - $\sim 5 \text{ pb}^{-1}$ at 60% polarization, but 4 weeks a hard deadline
- **6.5-7 weeks** of long. Scattering at 200 GeV CM for consolidating the ΔG result from *Run-5* and **first** possible spin asymmetries from *direct photon production*
 - Desired FOM improvement: $(P^4L)_{\text{RUN6}} \sim \text{*at least* } 4 (P^4L)_{\text{RUN5}}$
 - Hard deadline of 7 weeks
- **2 weeks** of 62.4 GeV CM pp data for *Au-Au/Cu-Cu comparison*, transversely polarized if possible
 - 0.6 pb^{-1} initially suggested, but now, will take any sample $\sim 0.2 \text{ pb}^{-1}$
 - No polarization minimum
- **3 days** of 22 GeV CM pp data for *comparison with SpS*
 - 4 nb^{-1} , no polarization requirements
- **1 week** of machine commissioning and studies at 500 GeV CM polarized transverse & longitudinal data
 - Background and trigger studies & local polarimetry at 250 GeV CM