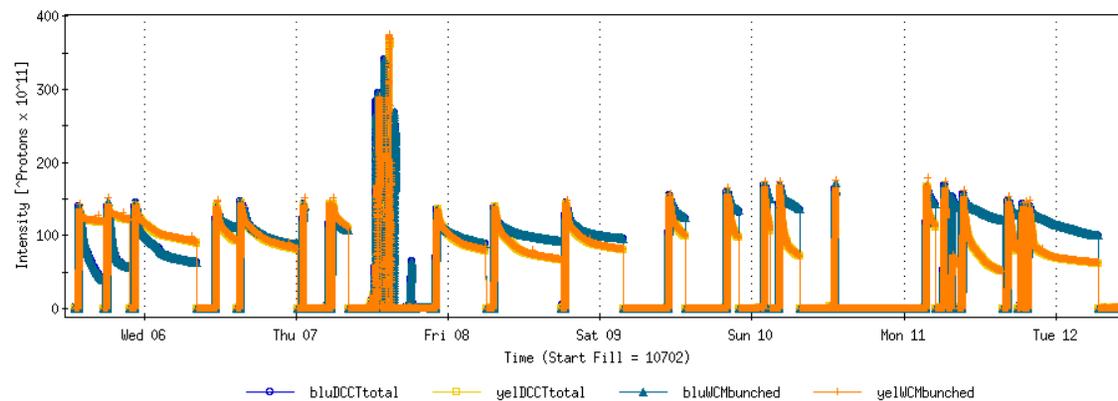
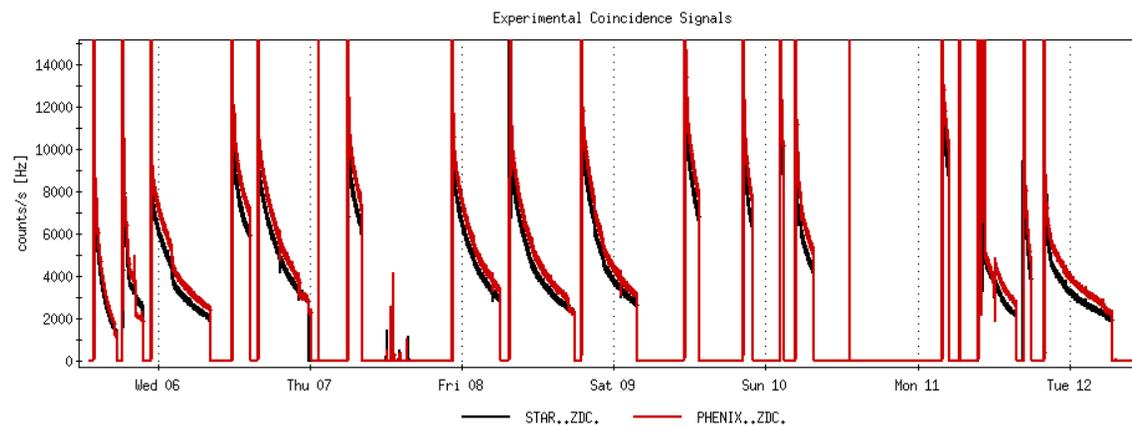


RHIC Status

May 12, 2009



- 8 h vacuum scrubbing on Thursday took more time to set up than expected. Only about 3 h of actual beam time.
- Increased bunch intensity in steps of $0.05e11$ store-by-store. Not much luminosity gain beyond $1.35e11$.
- Lots of failures over the weekend: PASS, RF, LINAC, rotator power supplies,...
- Yellow ramp efficiency deteriorated since intensity was raised beyond $1.5e11$.
- Best stores have around $45 \cdot 10^{30} \text{ cm}^{-2} \text{ sec}^{-1}$ initial luminosity, but Yellow lifetime is poor.

- Lowered bunch intensity to $1.35e11$. Yellow ramp efficiency is back at 93 percent, but lifetime at store is still poor.
- Found odd 7 mm bump at yi3-bh13 last night. Removing the bump and lowering horizontal chromaticity by 4 units, together with small tune adjustments, brings decay rate down from 50%/h to 12%/h (Blue is at 5%).
- pp2pp tested successfully this morning.

Plan for the week

- APEX and Maintenance Day Tuesday night/Wednesday
- Physics running
- 4 h Machine Development on Thursday (chromaticity on the ramp, orbits, RF voltage on the ramp to help bucket area, nonlinear chromaticity,...)
- Vacuum scrubbing to allow for higher intensities at smaller emittances on Monday