100 GeV Polarized Proton Run

April 7, 2009

Machine configuration and parameters

- Beam energy: 100 GeV
- Ramp: pp100-90 (derived from 250 GeV ramp up to 100 GeV, then squeeze)
- Polarization orientation: longitudinal at PHENIX and STAR
- $\beta^* = 70$ cm at PHENIX and STAR, 7.5 m elsewhere
- Ramp tunes: (.73/.72) up to 100 GeV, then tune swing to (.695/.685)

Setup plan

Day 0:

- RHIC LLRF work, using 250 GeV ramp, 12 – 18 h (Alex et al.)
- Maintenance
- Ramp test, 5 – 6 h (Don)

Day 1-3:

- Adjust bend trim, if necessary due to different hysteresis
- Ramp development (no rotators yet), using tune feedback
- Check separation bumps

Day 4-5:

- Rotator ramp development, using tune feedback (Waldo)
- Nonlinear chromaticity correction (Yun, Guillaume)
- IR nonlinear corrections (Fulvia)
- Setup collimation for vertical polarization (Angelika)
- Overnight stores, with vertical polarization

Day 6-12:

- Setup collimation for rotator ramp (Angelika)
- Overnight stores, longitudinal polarization
- Increase number of bunches and bunch intensity
- Fine-tune the ramp to maximize polarization
- Vernier scans (Angelika)

Day 13-:

- Physics
- Development during Day shifts
- Maintenance every other week, APEX every Wednesday