Goals

Trans. pol. protons colliding at \( \sim 100 \text{ GeV per beam} \) \((P > 50\%)\).
Long. pol. protons colliding at \( \sim 100 \text{ GeV per beam} \) \((P > 50\%)\).
Commission acceleration of pol. protons to 250 GeV per beam.
Schedule

8 Nov: 1 shift shutdown to install AGS polarimeter.

9 → 26 Nov: Au in RHIC; pol protons in AGS.

26 → 29 Nov: Shutdown to change RHIC to pol. protons.
   Run pol. protons in AGS.

30 Nov. → 21 Dec.: Commission pol. protons in RHIC.

22 Dec. → ∼ 25 Jan.: Physics with pol. protons.
RHIC Commissioning Plan

- Test injection into $\beta^* = 3$ m lattice with Au.
- Commission ac dipole. (with Au?)
- Set up injection with protons.
- Set up snakes, flatten orbits.
- Commission polarimeters with vert. pol. at injection.
- Use ac dipole to calibrate snakes ($\nu_s = 0.5$).
- Accelerate pol. protons to 100 GeV; collide beams.
- Decelerate pol. protons back to injection.
- Turn off 1 snake at storage to obtain horiz. pol.
- Calibrate energy at storage (accel through $\Delta G\gamma = 1$).
- Accelerate pol. protons to 250 GeV.

Waldo MacKay
6 November, 2001
## Nominal Snake Settings

<table>
<thead>
<tr>
<th>$\gamma$</th>
<th>$B_{\text{out}}$ [A]</th>
<th>$B_{\text{in}}$ [A]</th>
<th>$\mu$</th>
<th>$\phi$</th>
</tr>
</thead>
<tbody>
<tr>
<td>25.94</td>
<td>-99.98</td>
<td>325.34</td>
<td>179.81°</td>
<td>-45.11°</td>
</tr>
<tr>
<td>107.09</td>
<td>-99.98</td>
<td>326.34</td>
<td>179.98°</td>
<td>-45.00°</td>
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<tr>
<td>107.09</td>
<td>-95.98</td>
<td>340.34</td>
<td>179.63°</td>
<td>-52.11°</td>
</tr>
</tbody>
</table>

From Vahid’s tracking through measured helices.
Other links

AGS commissioning plan:
http://www.rhichome.bnl.gov/People/huang/pp02/FY02plan.htm

Previous talks:

Polarization angles at IR’s and polarimeters for different energies: