Beam Polarization for STAR and PHENIX

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The Goal

- **Provide beam polarization in collisions corrected for polarization profiles**
- **Previously:** Single number per fill $\langle P \rangle$
- **New:** Two numbers per fill $P(t = t_0)$ and $\tau = dP/dt$
  - Expetiments can calculate the average according to their triggers, prescales, . . .
- **Results**
  - http://www.phy.bnl.gov/cnipol/fills/

Summary

- Use information from CDEV to select only relevant p-Carbon measurements
- Normalization to the H-jet is calculated using the beam intensity
- Estimated polarization decay per fill
  - $\approx 0.6 - -0.7\%$/hour similar for 100 GeV and 255 GeV
- High statistics results available for by bunch studies
- Results for experiments will be available at
  - http://www.phy.bnl.gov/cnipol/fills/

H-jet/p-Carbon Normalization

	Run 12, 100 GeV	Run 12, 255 GeV
B1U	1.03 ± 0.01	0.98 ± 0.01
B2D	1.16 ± 0.02	1.14 ± 0.03
Y2U	1.01 ± 0.02	1.01 ± 0.02
Y1D	1.04 ± 0.02	1.08 ± 0.02

- Initial p-Carbon numbers are based on the 2004 A_N at 100 GeV