

PHOBOS Physics Goals/Needs for Run 5

Physics goals for planned Cu-Cu run

- **Energy** and centrality dependence for
 - 4π observables (multiplicities, flow)
 - Particle spectra

Needs (Cu-Cu)

- ~ 1 Billion events @ 200 GeV (1.5-4 nb⁻¹ or 2+8 weeks)
- ~ 150 Million events @ 62.4 GeV (2 weeks)
- 1 day @ 22.4 GeV (injection)

Required run conditions to achieve goals – luminosity, β^* etc.

- Assuming $\beta^*=3\text{m}$ for 200 GeV as last year

Special requests:

- Fixed-length stores are clearly optimal for overall operation of PHOBOS.
- We would like additional time (e.g. 45 minutes) in a store if there is a substantial (>30 min) vacuum breakdown.
- PHOBOS magnet has three states: even amount of data in each polarity and 10% field off.
- (pp): Special 400 GeV run as early as possible.