



STAR BES Physics Programs

- 1) PHENIX can trigger* on collisions below the injection energies – good news for everyone!

- 2) RHIC BES should focus around 10 GeV and below
 - Lattice predictions indicate $\mu_B \sim 350 - 400$ MeV
 - Systematic data on transverse slope parameters T_{eff} , $\langle m_T \rangle$, appears to saturate at this energy
 - Systematic analysis on fluctuations show increase
 - Systematic analysis on K/pion ratio show a peak, indicating maximum net baryon density
 - Critical to have an idea about the collider performance at the low beam energy early on**

** thin beam pipe will be installed after run10



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Beam Energy (GeV)	μ_B (MeV)	STAR BUR (run10)	Steve	STAR (25+ week)	PAC
200	25	8	10	10	10
62.4			4	4	4
39	110	0.7	1	0 ⁺	0.5
27	160	1.7	2.5	0	0.5
18	260	2.3	0	0	1
11.5	340	2.7	1.5	2	2
7.7	420	8	1	4 ⁺	4
6.0	500				
5.0	550				

+ Extended time will be allocated at 39 and 7.7 GeV