

Thermalization in 3.0 GeV fixed target collisions from the RHIC Beam Energy Scan

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1 We report modifications to the traditional Blast wave fit to momentum spectra of particles
2 at mid rapidity emitted from central Au+Au collisions at $\sqrt{s_{NN}} = 3.0$ GeV in STAR, and
3 compare to HADES Collaboration results at $\sqrt{s_{NN}} = 2.4$ GeV. We explore a scenario of a
4 Gaussian shape of emission source in rapidity, which modifies the boost invariance assumption
5 of the traditional Blast wave model. Such a modification is to be expected when the produced
6 fireball is fully hadronic and the ideal hydrodynamics breaks down. The modified Blast wave
7 model seems to be able to unify the $\pi/K/p$ spectra to common temperature and transverse
8 flow velocity, indicating that the thermal equilibrium is achieved in the hadronic system
9 produced in 3.0 GeV Au+Au collisions.