Spectra and angular correlation of high momentum charged particles in PHENIX.

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Abstract

In summer 2000 the first collisions of Au+Au ions at sqrt(S)=130A*GeV have been observed at RHIC. This new energy regime provides new opportunities to investigate the early phase of the collision by using hard-scattered partons as a probe. In the expected ultra-high-density medium it is predicted theoretically that partons will experience a large energy loss. Experimentally, a reduced yield of high-momentum particles, as well as an enhanced acoplanarity may be observed. During the last run PHENIX has recorded more than five million minimum-bias Au+Au events. The excellent momentum resolution of the central arm detectors permits the measurement of charged particles distributions up to several GeV/c. Yields and angular correlations of high momentum particles are studied as a function of momentum and centrality and their implications will be discussed.

Preprint submitted to Elsevier Preprint *20 December 2000*