

Abstract Submitted
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**Transverse energy at RHIC in the forward/backward directions
using the PHENIX Muon Piston Calorimeter** JONATHAN BEN-BENJAMIN

— The status of a measurement of transverse energy $E_T = E \sin(\theta)$ in the forward direction ($3.1 < |\eta| < 3.7$) from Au+Au, p+p, and d+Au collisions at RHIC energies using the PHENIX Muon Piston Calorimeter will be reported. Transverse energy has not been measured in this kinematic range at these beam energies before. This result can be used to estimate energy density in heavy ion collisions. In addition, fluctuations in this observable can be used as a signature for a critical point in the phase diagram of nuclear matter. Finally, measurements of transverse energy can be used to discriminate between competing models of hadronic interactions.

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