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Transverse energy analysis from identified particle transverse momentum spectra. TANNER MENGEL, CHRISTINE NATTRASS, SOREN SORENSEN, BISWAS SHARMA, CHARLES HUGHES, BENJAMIN SMITH, NATHAN WEBB, University of Tennessee, Knoxville — In high energy heavy ion collisions, the energy densities can often exceed the theoretical limit for the formulation of Quark gluon plasma (QGP). Measurements of the transverse energy production in heavy ion collisions provide valuable information about the global properties of these collisions and the initial energy state of the QGP. Traditionally, measurement of the transverse energy is obtained via calorimeter. Here we will present measurements using an alternative method, based on identified particle transverse momentum spectra, published by the STAR collaboration. For this analysis we use transverse momentum spectra corresponding to proton, pion, kaon and lambda, ranging from 7.7 GeV to 200 GeV. The assumptions of this analysis will be discussed, as well as comparisons to calorimeter transverse energy measurements published by the PHENIX collaboration.

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