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(CEU) Calculating Corrections to Transverse Energy in Relativistic Heavy Ion Collisions BENJAMIN SMITH, TANNER MENGEL, BISWAS SHARMA, NATHAN WEBB, SOREN SORENSEN, CHRISTINE NATTRASS, University of Tennessee, Knoxville — By colliding heavy nuclei at relativistic velocities, the resulting increase in temperature and density of the collision volume can cause a phase transition of the nuclear matter to what is called a quark-gluon plasma. Several experiments to observe the behavior of this phase occur at the Relativistic Heavy Ion Collider (RHIC) in New York. As an effect of the collision, many particles are ejected transverse to the beam axis. Using published single particle spectra, the total transverse energy is calculated and can provide an independent cross check of transverse energy measurements. These calculations are using estimates for particles unable to be measured. Included in this calculation are corrections such as feeddown. I will describe several of the assumptions made and several tests of these assumptions from Monte Carlo models.

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