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Simulations for the PHENIX Muon Piston Calorimeter Measurement of Transverse Energy CHRISTOPHER ZUMBERGE, Muhlenberg College, PHENIX COLLABORATION — The PHENIX detector's Muon Piston Calorimeter measures the energies of photons (most of which are the products of pion decay) in the collisions of particles at the Relativistic Heavy Ion Collider (RHIC). The data acquired from the collisions of gold ions at  $\sqrt{s_{NN}} = 200$  GeV will be used to measure the transverse energy over the kinematic acceptance of the detector. Corrections for the detector's hadronic response are needed to complete a measurement of the transverse energy and estimate systematic error. The PHENIX Integrated Simulation Application (PISA) is a software package that integrates both a GEANT3 simulation of the entire PHENIX detector and an event generator. In this case HIJING is being used as the event generator. Progress on the production of these simulations will be reported.

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