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**Fluctuations in Transverse Energy at high pseudorapidity using the PHENIX Muon Piston Calorimeter** DAVID REINERT, Muhlenberg College, PHENIX COLLABORATION — The PHENIX Muon Piston Calorimeter (MPC) is being used to measure transverse energy fluctuations from Au+Au collisions produced by the Relativistic Heavy Ion Collider (RHIC) in 2010 as part of the beam energy scan program. The PHENIX data set from that year includes Au+Au collisions at  $\sqrt{s_{NN}} = 200, 62.4, 39, \text{ and } 7.7$  GeV. Nonmonotonic behavior of these fluctuations as a function of beam energy could indicate the existence of a critical point in the QCD phase diagram. Their dependence on collision centrality will also be investigated. Progress in making these measurements with the 200 GeV data will be reported.

David Reinert  
Muhlenberg College

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