

Abstract Submitted  
for the APR09 Meeting of  
The American Physical Society

**Hadron Ratios in dA Collisions at RHIC and LHC Energies<sup>1</sup>**

ADEOLA ADELUYI, GEORGE FAI, Kent State University — The ratios of particle production in nucleus-nucleus collisions are important indicators of the underlying collision dynamics. In symmetric heavy nucleus-nucleus collisions (e.g. Au+Au and Pb+Pb), effects like jet energy loss are important and add to the complexity of the interaction. Asymmetric light-heavy collisions (e.g. d+Au or d+Pb) on the other hand are “cleaner” and more suitable for establishing a baseline. In this study, we investigate the role of fragmentation functions in particle ratios at RHIC (d+Au) and LHC (d+Pb) energies, as a test of our current understanding of the parton fragmentation process. Using the framework of a QCD-improved parton model, we calculate charged and sum of charged hadron ratios at both mid and forward rapidities to evaluate the performance of current fragmentation functions. We compare our results with available experimental data.

<sup>1</sup>Supported by DE-FG02-86ER40251.

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Date submitted: 13 Jan 2009

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