

Abstract Submitted
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The centrality dependence of jet production in d-Au and p-Pb collisions MICHAEL KORDELL II, ABHIJIT MAJUMDER, Wayne State Univ — We study the correlation between jet production in d-Au and p-Pb collisions and the number of charged particles produced (N_{chg}). Collisions are carried out by modifying the PYTHIA event generator for p/n-p/n collisions. Exact energy conservation, in a collision of one nucleon (from the d) with a column of N nucleons (from Au or Pb), is incorporated by elevating one nucleon in a p-p collision to a “super” nucleon, enhancing the parton distribution functions by N . We include a new implementation of a transverse density dependent event-by-event shadowing. The results for high p_T π^0 production, binned in centrality by the number of charged particles produced, are compared with data from PHENIX; the results for jet production binned in centrality are compared with data from ATLAS. We observe the observed enhancement of peripheral events compared to central for both d-Au and p-Pb.

Michael Kordell II
Wayne State Univ

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