

Abstract Submitted  
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**Cold Nuclear Matter Effects on Jets in PHENIX** NATHAN GRAU,  
Columbia University, PHENIX COLLABORATION — In order to understand jet quenching effects in the hot dense matter created in relativistic heavy ion collisions at RHIC, it is necessary to understand the baseline effects that are present. These include effect of nuclear parton distribution functions (nPDFs), shadowing, anti-shadowing, and the EMC effect, and multiple scattering of the partons before and/or after the hard scattering. This physics can be probed using fully reconstructed jets in  $p+A$  collisions. We use the PHENIX detector to reconstruct jets using the anti- $k_T$  algorithm in  $d+Au$  collisions at  $\sqrt{s_{NN}} = 200$  GeV. We will present the latest results from jet reconstruction in  $d+Au$  and discuss the implication for physics in both cold and hot dense nuclear matter.

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