

Direct jet reconstruction in d+Au collisions at PHENIX

d+Au collisions at RHIC can be used to investigate cold nuclear matter effects on hard parton scattering. d+Au collisions at different centrality (different N_{coll}) can probe nuclear parton distributions, initial state energy loss and final state parton interactions in the cold nucleus. They also provide a valuable baseline for hard-scattering processes in heavy ion collisions. Measurements using jet reconstruction may provide a more sensitive probe of the parton level physics than inclusive single-particle measurements or two-particle correlations. We present the current results from direct jet reconstruction at PHENIX in d+Au collisions at $\sqrt{s} = 200$ GeV. We discuss some of the challenges of direct jet reconstruction in a high-multiplicity heavy ion environment.

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