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Jet Reconstruction at the PHENIX Experiment for Studying Proton Structure EMILY CAMRAS, CHRISTINE AIDALA, University of Michigan, PHENIX COLLABORATION — Jets in hadronic collisions are useful probes to access hard-scattered parton kinematics without involving fragmentation functions to particular hadrons. Jet reconstruction using the anti- k_t sequential recombination method has recently become an effective analysis tool in the PHENIX experiment at the Relativistic Heavy Ion Collider at Brookhaven National Lab. Use of the method in the limited acceptance PHENIX detector was verified by good agreement between perturbative QCD predictions and jet yields for $p + p$ collisions from 2008 data; the $p + p$ jet yields were then compared with jet production in $d + Au$ collisions. Jet measurements are also of interest in polarized $p + p$ collisions to study spin-momentum correlations in the proton independent of fragmentation functions. We implement the jet reconstruction method for the 2015 detector setup applied to simulated $p + p$ data for future use in real data analysis.

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