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Measurement of Direct Photons in $\sqrt{s_{NN}}=200\text{GeV}$ d+Au Collisions at RHIC-PHENIX HISAYUKI TORII, RIKEN, PHENIX COLLABORATION — The measurement of direct photon production at large transverse momentum in hadron interactions is a good test of QCD. Because the direct photon production in Au+Au collisions happens through the fundamental interactions of partons in Au-nuclei and do not interact strongly with the surrounding medium, direct photon production is an important probe in the search of the Quark Gluon Plasma. The partons in Au-nuclei are known to have a different behavior than in protons. To understand such nuclear effects on the partons in Au-nuclei, it is crucial to measure direct photons in p+p and d+Au collisions. This analysis uses the PHENIX electromagnetic calorimeters and triggering system for the detection of photons at high p_T . In this talk, we will present the invariant yield of direct photons in $\sqrt{s_{NN}}=200\text{GeV}$ d+Au collisions at PHENIX. We will present comparison with results in p+p collisions and prediction of a pQCD calculation. We also want to show the centrality dependence of direct photon production in d+Au collisions.

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