Abstract Submitted for the HAW05 Meeting of The American Physical Society

Measurement of Direct Photons in $\sqrt{s}=200$ GeV p+p KENSUKE OKADA, RIKEN-BNL Research Center, RHIC-PHENIX COLLABORATION — Direct photon measurements in p+p collisions provide a superb test of the precision of perturbative QCD, because the dominant partonic process for direct photon production is gluon-quark scattering and no hadronic fragmentation process is involved. Direct photons are also expected to be a good probe of the proton gluon-spin structure which can be accessed in polarized-proton collisions at RHIC. With its highgranularity electromagnetic calorimeter, the PHENIX experiment is well suited to identify backgrounds of hadronic decay. The high energy photon trigger plays an important role. In addition, along with the charged tracking system, we can do a photon isolation test, which direct photon events are supposed to pass. In this talk, we will present the direct photon cross section measurement in p+p at mid-rapidity.

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Date submitted: 25 May 2005

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