Abstract Submitted
for the APR14 Meeting of
The American Physical Society

Study of double parton interactions in photon + 3 jets events and photon + b/c + 2 jets events at the Tevatron GEORGY GOLOVANOV, Joint Institute for Nuclear Research, D0 COLLABORATION — We have used a sample of photon + 3 jets as well as photon + b/c + 2 jet events collected by the D0 experiment with an integrated luminosity of 8.7 fb^{-1} to determine the fraction of events with hard double parton (DP) scattering in a single proton-antiproton collision at $\sqrt{s} = 1.96$ TeV. The DP fraction and effective cross section, a process-independent scale parameter related to the parton density inside the nucleon, are measured in the kinematic region p_{T}^{γ} >26 GeV, $p_{\mathrm{T}}^{\mathrm{jet1}}$ >15 GeV, and $15 \leq p_{\mathrm{T}}^{\mathrm{jet2,3}} \leq 35$ GeV.

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Date submitted: 10 Jan 2014 Electronic form version 1.4