

πp Drell-Yan Process in Color Dipole Model

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Abstract: We study pion-proton (πp) Drell-Yan (DY) dilepton production in the target rest frame with color dipole model. The prediction for πp DY cross section at the energies of RHIC and LHC is presented, and it can be compared with the data directly, because it does not need K factor. At the same time, the transverse momentum distribution is shown in quantities, which is not available from the standard parton model. The experimental studies of the process could test the color model for DY dilepton production.

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Key words: color dipole model, Drell-Yan process, cross section

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