

Double parton scattering mechanism for associated c and b quark production in ultraperipheral collisions AA .

mardi 14 septembre 2021 16:01 (1 minute)

The double-parton scattering (DPS) at the hadron colliders such as the LHC is sensitive to correlations in the double-parton distributions. When looking at inclusive observables, it is dominated at high energies (small x) by the interaction of 4 gluons in the initial state. In order to extract different information about the partons, we are interested in the interaction between two gluons and two photons. To do so, we look at the associated c and b quarks production in the DPS process in ultraperipheral collisions (UPCs) AA . We derive an analogue of the pocket formula for this DPS and the photon-energy dependent effective cross section at high energies. We provide numerical predictions for this DPS cross sections at the typical energies of the LHC and FCC colliders.

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Classification de Session: Poster