

Open charm/beauty photoproduction in ultraperipheral heavy-ion collisions

In ultraperipheral heavy-ion collisions, a photon emitted by one nucleus can interact with the other nucleus via photon-gluon fusion and lead to heavy quark production. The resulting yields of open charm or beauty depend on the photon flux and the gluon distribution within nuclei, enabling this process to probe the nuclear gluon distribution function. We extend the previous calculations for the heavy quark photoproduction cross section using updated parton distribution functions and including higher order corrections to the partonic cross section.

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