



Contribution ID: 21

Type: Paralela

Investigating the inclusive D^0 and B^0 photoproduction in ultraperipheral collisions

Wednesday 3 December 2025 14:40 (20 minutes)

The inclusive D^0 and B^0 photoproduction in $p\text{Pb}$ and PbPb collisions at the center - of - mass energies of the Large Hadron Collider (LHC) is investigated considering the color dipole S - matrix approach. The analytical expressions for the differential distributions are derived in the transverse momentum space and predictions for the rapidity and transverse momentum distributions are presented considering distinct models for the unintegrated gluon distribution of the target, assuming linear and nonlinear dynamics. A comparison of these predictions with the recent CMS data for D^0 photoproduction is also performed. Our results indicate that a detailed analysis of this observable will be very useful to improve our understanding of the strong interaction theory at high energies and in a nuclear medium.

Altas energias

Author: SANTANA, Luana (UFPeI)

Presenter: SANTANA, Luana (UFPeI)

Session Classification: Altas Energias