Contribution ID: **72** Type: **not specified**

Production of D^+D^- molecules in ultra-peripheral Pb-Pb collisions

In this work we discuss exotic charmonium production by photon-photon interactions in ultraperipheral heavy ion collisions. We are interested in the production of the bound molecular state $\left(D^+D^-\right)$. Our calculations are performed in the impact parameter space, where we consider different levels of precision for the treatment of the absorptive effects and for the nuclear form factor. Additionally, we use an analytical expression for the photoproduction cross section of the bound state. We present our predictions for the total cross section of the production process $AA \to AA\left(D^+D^-\right)$ and the rapidity distribution in PbPb collisions at LHC energies ($\sqrt{s_{NN}} = 5.02\mathrm{TeV}$).

Author: AZEVEDO, Celsina (University of Sao Paulo)

Presenter: AZEVEDO, Celsina (University of Sao Paulo)