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# Nuclear Effects In The Inclusive Production of Vectorial Mesons at Proton-Nucleus Collisions

Thursday, 7 October 2021 18:25 (5 minutes)

In this work, the nuclear effects are analyzed in the inclusive production of vector mesons ( $\psi$  and  $\Upsilon$ ) at proton-nucleus collisions in a high energy regime. We study in detail the production model, taking into account initial effects like nuclear shadowing and parton saturation. The theoretical framework is given by the QCD dipole formalism which has its parameters determined by lepton-proton collision data. This allows us to make parameter free predictions in the kinematic regime of interest in the RHIC and LHC accelerators. The results are compared with experimental data for the nuclear modification factors. Theoretical uncertainties coming from different models for the color dipole amplitude and nuclear saturation scale are investigated.

# Is this abstract from experiment?

No

### Name of experiment and experimental site

N/A

# Is the speaker for that presentation defined?

Yes

### **Details**

Érison Rocha, PhD student, at UFRGS, Brazil

#### Internet talk

Yes

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