Contribution ID: **1** Type: **Talk**

Cold and hot medium effects on charmonium production in 5.02 TeV p-Pb collisions

Friday 31 March 2017 11:20 (30 minutes)

We study cold and hot nuclear matter effects on charmonium production in p+Pb collisions at $\sqrt{s_{NN}}$ = 5.02 TeV in a transport approach. As cold nuclear matter effects give almost the same modification on different $c\bar{c}$ states at the LHC energy, different nuclear modification factors of J/ψ and ψ' indicate the existence of the hot medium. In forward rapidity, we can explain well the J/ψ and ψ' yield and transverse momentum distribution measured by the ALICE collaboration, and we predict a significantly larger ψ' broadening in comparison with J/ψ. However, we can not reproduce the J/ψ and ψ' data at the backward rapidity with reasonable cold and hot medium effects.

Reference: Phys.Lett. B765 (2017) 323-327

Author: Dr CHEN, Baoyi (Tianjin University)

Co-authors: Prof. ZHUANG, Pengfei (Tsinghua University); Mr GUO, Tiecheng (Tsinghua University); Dr LIU, Yunpeng (Tianjin University)

Presenter: Dr CHEN, Baoyi (Tianjin University)

Session Classification: Proton-nucleus collisions

Track Classification: Proton-nucleus collisions