Contribution ID: **83** Type: **Oral presentation**

Quarkonia production in proton-proton and Pb-Pb collisions with ALICE

Tuesday 24 September 2024 09:00 (20 minutes)

Charmonia are a valuable tool to investigate nuclear matter under extreme conditions, and particularly the strongly interacting medium formed in heavy-ion collisions. At the LHC energies, the regeneration process has been found to significantly impact the observed charmonium yields. In particular, the measurement of $\psi(2S)$ production relative to J/ψ in Pb-Pb collisions has a strong discriminating power between different regeneration scenarios. Additionally, the study of quarkonium production in proton–proton (pp) collisions represents the reference for interpreting results obtained in Pb–Pb collisions and it is a key measurement to distinguish among the quarkonium production models in pp and p–Pb. In this contribution, preliminary findings on the double ratio of $\psi(2S)$ -to- J/ψ between Pb-Pb and pp collisions and the inclusive J/ψ yield in pp collisions at $\sqrt{s}$ = 13 TeV measured by the ALICE Collaboration will be presented and compared with existing model calculations.

Category

Experiment

Collaboration

ALICE

Primary authors: COLLABORATION, ALICE; WANG, Yiping (University of Science and Technology of China (CN))

Presenter: WANG, Yiping (University of Science and Technology of China (CN))

Session Classification: Parallel 11: heavy quarkonia in medium

Track Classification: 3. Heavy quarks and quarkonia