

11th International Conference on Hard and Electromagnetic Probes of High-Energy Nuclear Collisions



Beitrag ID: 78

Typ: Talk

New insights into heavy-quarks hadronisation with charm and beauty hadrons in hadronic collisions with ALICE

Dienstag, 28. März 2023 16:50 (20 Minuten)

In this contribution, we present the new measurements of non-prompt D^+ and D_s in pp collisions at $\sqrt{s} = 13$ TeV. Together with the final measurements of non-prompt D^0 and Λ_c^+ , they are crucial to study the beauty quark hadronisation in proton-proton (pp) collisions and their difference with respect to e^+e^- collisions. In addition, the baryon-to-meson ratio in pp collisions compared with that in e^+e^- and electron-proton collisions and model predictions, and the measurements of charm fragmentation fraction in pp and pPb collision will be reported as well.

Furthermore, the new non-prompt Λ_c^+/D^0 ratio in p-Pb collisions as well as the first measurement of non-prompt D^0 nuclear modification factor R_{pPb} at $\sqrt{s_{NN}} = 5.02$ TeV will be presented. The status of prompt Ξ_c R_{pPb} studies will be reported. They provide important information about Cold-Nuclear Matter (CNM) effects and to understand how the possible presence of collective effects could modify the production of heavy-flavour hadrons and the similarities observed among pp, p-nucleus, and nucleus-nucleus systems.

Experiment/Theory

ALICE

Affiliation

ALICE

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Sitzung Einordnung: Parallel: Heavy Flavours & Quarkonia

Track Klassifizierung: Heavy flavor and quarkonia