

Investigating the coalescence probability of light nuclei production in jets with ALICE

Saturday 20 July 2024 10:45 (15 minutes)

The production mechanism of (anti)nuclei in ultrarelativistic hadronic collisions is under intense debate in the scientific community. Two successful models used for the description of the experimental measurements are the statistical hadronisation model and the coalescence approach. In the latter, multi-baryon states are assumed to be formed by coalescence of baryons that are close in phase-space at kinetic freeze-out. Due to the collimated emission of nucleons in jets, the available phase-space is limited, hence the production of nuclear states by coalescence in jets is expected to be enhanced with respect to the production in the underlying event. In this contribution, the results for the coalescence parameter B_2 , that quantifies the formation probability of deuterons by coalescence, in and out of jets measured in both pp and p-Pb collisions are presented in comparison with predictions from the coalescence model.

Alternate track

I read the instructions above

Yes

Author: CALIVA, Alberto (Universita e INFN, Salerno (IT))

Co-author: COLLABORATION, ALICE

Presenter: CALIVA, Alberto (Universita e INFN, Salerno (IT))

Session Classification: Strong interactions and Hadron Physics

Track Classification: 06. Strong Interactions and Hadron Physics