Contribution ID: **269** Type: **Poster**

Measurements of (anti)nuclei in pp collision at √s = 13.6 TeV

Tuesday 5 September 2023 17:30 (2h 10m)

The ALICE detector at the CERN LHC is particularly suited to study light (anti)nuclei produced in high-energy collisions between hadrons. The formation mechanism of (anti)nuclei in these collisions is still one fundamental open question that is being addressed both theoretically and experimentally. This mechanism is investigated by comparing experimental data with phenomenological models such as statistical hadronization and coalescence. The latest has important applications, especially in cosmic antinuclei studies for indirect dark matter searches.

The ALICE apparatus underwent a series of major upgrades during the LHC long shutdown 2 to benefit from the luminosity increase of LHC Run 3. These upgrades allow the measurement of (anti)nuclei, such as (anti)deuterons and (anti)He-3, with unprecedented precision.

In this poster the first analysis on (anti)nuclei production at mid-rapidity (|⊠|<0.8) in √s = 13.6 TeV pp collisions collected during the 2022 data taking campaign with the upgraded detector will be presented.

Category

Experiment

Collaboration (if applicable)

Author: MALFATTORE, Giovanni (University of Bologna and INFN, Bologna (IT))

Presenter: MALFATTORE, Giovanni (University of Bologna and INFN, Bologna (IT))

Session Classification: Poster Session

Track Classification: Light and strange flavor