Contribution ID: **240** Type: **Poster**

Hyperon reconstruction methods with high purity and efficiency in Pb-Pb collisions at ALICE

Tuesday 25 April 2023 18:00 (20 minutes)

The precise knowledge of hyperon-hyperon interaction is one of the key measurements in QCD. To achieve this goal, it is fundamental to identify hyperons with a high purity in a high charged-particle multiplicity environment, such as a central Pb-Pb collisions. Thanks to its excellent particle identification and tracking performance, the ALICE experiment at the LHC is ideal for these measurements.
In this contribution, the performance of hyperon reconstruction in LHC run 2 (2015-2018) with ALICE will be shown. Additionally, new developments on secondary vertex reconstruction using the Kalman filter approach and Boosted Decision Tree will be shown. These developments are of fundamental importance for the high-luminosity Pb-Pb data-taking campaign foreseen at the end of 2023.

Theory / experiment

Experiment

Group or collaboration name

ALICE experiment

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