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A comparative study of identified particle production in ${\rm ^{16}O-^{16}O}$ collisions at $\sqrt{\rm s_{NN}}$ = 7 TeV using HYDJET++ and Angantyr models

In recent years, a lot of interest has been generated in the exploration of small collision system dynamics due to the observation of anisotropic flow coefficients (v_n) and enhanced production of (multi-) strange hadrons in high multiplicity p-p collisions at ALICE experiment. These observations imitate the characteristics of the deconfined quark-gluon plasma (QGP) matter formed in heavy-ion collisions. In an effort to understand the transition of these effects from large to small colliding systems, LHC RUN 3 has a plan for ${}^{16}\text{O}-{}^{16}\text{O}$ collisions at $\sqrt{s_{NN}} = 7$ TeV which have a final state multiplicity range overlapping with both p-Pb and Pb-Pb collisions. \par

In this work, the dynamics of identified particle production in $^{16}O-^{16}O$ collisions at $\sqrt{s_{\rm NN}}$ = 7 TeV using Monte Carlo event generators will be presented. Further, a comparison between the results obtained by HYDJET++ and Angantyr models will be discussed.

Field of contribution

Phenomenology

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