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D⁰-tagged jets in Pb–Pb collisions at $\sqrt{s_{\text{NN}}} = 5.02$ TeV with ALICE at the LHC ANTONIO CARLOS OLIVEIRA DA SILVA, University of Tennessee, Knoxville, ALICE COLLABORATION — Heavy quarks, due to their large masses, are produced in the early stages of high-energy hadronic collisions in hard-scattering processes. Therefore, they are ideal probes of the quark-gluon plasma (QGP). The mass-dependent energy loss in the QGP is investigated using jets tagged by D⁰ mesons. The modification of the yields as a function of jet transverse momentum in Pb–Pb collisions in comparison with pp collisions provides information on the charm-quark interaction with the medium. In this contribution the measurement of D⁰-tagged jets in Pb–Pb collisions at $\sqrt{s_{\text{NN}}} = 5.02$ TeV with the ALICE detector will be presented. The presence of the charmed meson as a jet constituent enhances the rejection of jet combinatorial background allowing the study of the jet spectrum down to low p_{T} , where probes are more sensitive to hot nuclear matter effects.

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