

Overview of heavy-flavour measurements in ALICE

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ALICE is devoted to the study of the properties of the Quark-Gluon Plasma (QGP). This new state of matter is created using ultra-relativistic heavy-ion collisions at the LHC. Heavy quarks are considered effective probes for the QGP since they, due to their large masses, are produced in hard scattering processes and experience the full evolution of the hot and dense medium while interacting with its constituents. The heavy-quark measurements provide insights on mechanisms like the in-medium energy loss and hadronization.

The ALICE detector uses its excellent particle identification and vertexing capabilities to reconstruct heavy-flavour hadrons and leptons coming from heavy-flavour hadron decays. Measurements in proton-proton collisions provide a baseline for interpreting heavy-ion collision results and constitutes an excellent test of pQCD calculations. In addition, proton-nucleus collisions allow separating cold nuclear matter effects from the effects of the deconfined strongly interacting matter created in heavy-ion collisions.

In this contribution, an overview of recent ALICE results for open heavy flavours, quarkonia, and heavy-flavour jets is presented.

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