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Perspectives of heavy-flavour measurements in ALICE with the upgraded Inner Tracking System

The ALICE detector at the LHC is specifically designed to investigate the properties of the hot and dense medium, consisting of deconfined quarks and gluons (QGP), created in highenergy
heavy-ion collisions. Heavy–flavour particles are very special probes to investigate the properties of such a medium, since they are mainly produced in the initial phase and could experience the full evolution of the collision. Thanks to the excellent performance of the ALICE
detector, in particular of the Inner Tracking System (ITS) which play a crucial role for heavyflavour particle studies, interesting results have been obtained by analyzing pp, p–Pb and Pb–Pb data collected so far.
The upgrade of the inner tracker, which has been recently approved, combined with the upgrade of LHC luminosity in Pb–Pb collisions, will allow to improve significantly the current performances
of heavy-flavour measurements, in particular in the low momentum region, and in some cases they will be available for the first time (e. g. Λ_{c} barion in Pb–Pb collisions).
The perspectives for heavy-flavour measurements expected after the second long shut-down (LS2) of LHC will be discussed.

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