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## Physics Performance with the ALICE Silicon Tracker

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The detailed characterization of quark gluon plasma (QGP) produced in heavy-ion collisions is the main goal of the ALICE experiment at CERN LHC. The analysis of heavy quarks via the decays of their short-lived hadrons is among the prominent measure to address the in-medium properties of QGP. To efficiently reconstruct these decays ALICE comprises a precise Inner Tracking System (ITS) made out of six layers of silicon detectors based on three different technologies, namely two layers of pixels, two of drifts and two of double-sided microstrip.

The two-layer pixel barrel is the innermost detector of ALICE and therefore it plays a key role in the determination of the position of the primary vertex as well as for the measurement of the impact parameter of secondary tracks originating from the weak decays of strange, charm and beauty particles.

In this contribution the main physics measurement, which have been accomplished thanks to the successful operation with proton and lead beam of the ALICE pixel detector will be discussed.

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