

Study of beauty production in pp collisions at $\sqrt{s} = 7$ TeV with ALICE, using displaced electrons

The measurement of single electrons from heavy flavored hadron decays at RHIC indicates strong coupling of heavy quarks to the medium produced in ultra relativistic heavy-ion collisions. At the LHC, heavy quarks are copiously produced. This will allow us to investigate the heavy quark energy loss mechanism in detail and even its quark mass dependence in the medium produced by heavy-ion collisions. Moreover, the measurement of heavy quark production in pp collisions provides an important test of pQCD calculation and serves as a baseline for studies in heavy-ion collisions. The beauty quark cross section can be measured by preferentially selecting the electrons from beauty hadron decays via displaced vertices. In 2010, pp collisions at $\sqrt{s} = 7$ TeV have been recorded by ALICE at the LHC. We report on the status of the analysis for the measurement of the p_T differential cross section of electrons from beauty hadron decays at mid-rapidity in pp collisions.

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Track Classification: Heavy flavor and quarkonia production