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# Open Charm Analysis at Midrapidity in ALICE using the first year of pp data at $\sqrt{s} = 7$ TeV

## Content :

ALICE is the dedicated heavy-ion experiment at the LHC. Its main physics goal is to study the properties of the strongly-interacting matter in the conditions of high energy density ( $> 10$  GeV/fm<sup>3</sup>) and high temperature ( $> 0.6$  GeV) expected to be reached in central Pb–Pb collisions. Although, its design is optimized for heavy ion collisions and main physics program is concentrated on heavy ions, but is also well suited for p-p studies. ALICE is currently taking pp data at  $\sqrt{s} = 7$  TeV since march 2010 and the first run with heavy ion collisions is expected in November 2010. Charm and beauty quarks are expected to be the sensitive probes for the medium properties as they are produced in initial hard scattering and due to their long life time, they probe all the stages of the system evolution. The detailed understanding of charm cross section in p-p collisions provide interesting insight into QCD processes and are important as a reference study for heavy ion. The measurement of D-meson yield in p-p collisions can be used to extract the charm cross section. In this contribution, the ongoing study of reconstruction of D- mesons through the hadronic decay channel and the results obtained with  $\sqrt{s} = 7$  TeV pp data will be presented. The prospects of the same measurement in Heavy ion collisions will also be discussed.

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