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Open charm meson production as a function of event activity in pp collisions at $\sqrt{s} = 13$ TeV with ALICE

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Measurement of charm-hadron production in hadronic collision systems allow investigating the charm-quark hadronization mechanisms. In addition, measurements based on event shape observables allow isolating events according to their topologies, dominated by soft and hard processes. They provide information about the energy distribution in an event and provide tools to study the perturbative as well as non-perturbative aspects of the QCD. The event shape observables permit to isolate jetty-like (high- p_T jets) and isotropic (partonic scattering with low Q^2) events.

In this contribution, recent results on open-charm meson production measured by the ALICE Collaboration in pp collisions at $\sqrt{s} = 13$ TeV as a function of event activity from the Run 2 of the LHC will be presented. Measurements of the averaged self-normalized yield as a function of charged-particle multiplicity and transverse sphericity (S_o) at midrapidity for D^{*+} , D^+ and D^0 mesons will be shown. The self-normalized yield are shown for different multiplicity, transverse sphericity and p_T intervals. In addition, comparison with measurements performed at $\sqrt{s} = 7$ TeV will be shown and comparison with models will be discussed.

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