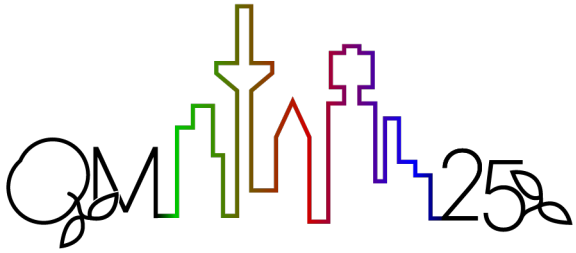

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Status of single and double D-meson measurements in pp collisions at $\sqrt{s} = 13.6$ TeV with ALICE

D-meson production measurements in pp collisions are used to test perturbative quantum chromodynamics (pQCD) calculations. This contribution reports preliminary results of the ALICE Collaboration on the non-prompt D^0 fraction at midrapidity in the transverse-momentum range $p_T < 24$ GeV/\textit{c}, measured in pp collisions at $\sqrt{s} = 13.6$ TeV, using data from the LHC Run 3. Results are compared to the predictions from EPOS and various tunes of PYTHIA simulations. Additionally, studying the double production of D mesons in the same collision allows us to investigate double charm production via single (SPS) and double parton scattering (DPS). Like-sign meson pairs are expected to be predominantly produced by DPS processes, while opposite-sign pairs are more likely to be created via SPS. The status of the measurement of double production of D^0 mesons in pp collisions at $\sqrt{s} = 13.6$ TeV is also reported.

Category

Experiment

Collaboration (if applicable)

ALICE

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