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## Measurement of D-meson production as a function of charged-particle multiplicity in proton-proton collisions at $\sqrt{s} = 13$ TeV with ALICE at the LHC

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The study of charm production as a function of charged-particle multiplicity allows the investigation of the role of multi-parton interactions (MPI), and provides insight into the processes occurring at the partonic level and on the interplay between the hard and soft particle production mechanisms in proton-proton (pp) collisions. In this contribution, measurements of open heavy-flavor production as a function of charged-particle multiplicity, via the study of the D-meson self-normalized yields in pp collisions at the center-of-mass energy of  $\sqrt{s} = 13$  TeV is presented. The D-meson yields are measured in different  $p_T$  intervals at midrapidity via their hadronic decay channels. The D-meson self-normalized yield is found to increase stronger than linearly with increasing charged-particle multiplicity, with a significant  $p_T$  dependence. The measurements are compared with the results in pp collisions at  $\sqrt{s} = 7$  TeV and model calculations.

**Author:** BAILUNG, Yoshini (Indian Institute of Technology Indore (IN))

**Presenter:** BAILUNG, Yoshini (Indian Institute of Technology Indore (IN))

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