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## Charm production and fragmentation fractions at midrapidity in pp collisions at the LHC with ALICE

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Heavy quarks (charm and beauty) have masses much larger than the characteristic energy scale of QCD interaction. Due to this they are typically produced in hard scattering processes with large  $Q^2$  and thus offer a unique perspective to study the transition from quark to hadrons in all collision systems. The latest measurements of charm meson and baryon production in pp collisions allowed the first measurement of the total charm production cross section including the contribution of all ground-state charm hadrons and the first measurement of the fragmentation fractions of charm in hadrons in pp collisions. The measurement of the charm baryon-to-meson yield ratios show a significant increase with respect to the measurements performed in  $e+e-$  and ep collisions, which suggests that the fragmentation of charm is not universal across different collision systems. Thus, precise measurements of charm baryon and meson production are crucial to study the charm quark hadronization in a partonic rich environment like the one produced in pp collisions at the LHC energies. In this contribution, the recent measurements of charm meson and baryon production in pp collisions will be shown. Also the comparison with the models to better understand the charm quark hadronization will be presented.

**Primary author(s)** : BALA, Renu (University of Jammu)

**Presenter(s)** : BALA, Renu (University of Jammu)

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