

## Forward charm production at hadron colliders

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We present a phenomenological study for the production of the charm quark in the forward and far forward region. We discuss theory predictions for differential cross sections at NLO in QCD obtained with the S-ACOT-MPS General Mass Variable Flavor Number (GMVFN) scheme applied to pp collisions.

We show the impact of charm-quark fragmentation contributions on the theory prediction and we discuss applications at future Forward Physics Facilities such as FASERnu. We discuss about the possibility of exploring QCD and extract parton distribution functions (PDFs) in extended kinematic regions of hadronic reactions that are currently not experimentally accessible.

### Submitted on behalf of a Collaboration?

No

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