

# QCD results from CMS: jets, determination of $\alpha_s$ and constraints on PDF, including determination of strange quark distribution

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## Summary

Associated W+charm production in proton-proton collisions at the LHC probes the strange quark in the proton at leading order. Recent CMS measurements of associated W+charm production and W muon charge asymmetry at 7 TeV are used together with HERA DIS data in a QCD analysis at next-to-leading order. The HERAFitter framework is used. The strange-quark fraction is determined as a function of the scaling variable  $x$ . Results are compared to measurements of ATLAS and NOMAD experiments.

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