

# XXVIII International Workshop on Deep Inelastic Scattering and Related Subjects



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## V+heavy flavor jets and constraints to PDFs in CMS

*Tuesday, March 24, 2020 3:24 PM (18 minutes)*

The associated production of vector bosons  $V$  ( $W$ ,  $Z$  or  $\gamma$ ) and jets originating from heavy-flavour ( $c$  or  $b$ ) quarks is a large background source in measurements of other standard model processes, Higgs boson studies, and many searches for physics beyond the SM. The study of events with a vector boson accompanied by heavy-flavour jets is crucial to refine the theoretical calculations in perturbative QCD, as well as to validate associated Monte Carlo predictions. Differential cross sections in  $V+c/b$  jets are measured as a function of several kinematic observables with the CMS detector at 8 and 13 TeV. The study of the associated production of a vector boson with jets from a  $c$ -quark is especially interesting, as it allows to extract information on the proton parton density functions.

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