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Associated Production of W boson With Jets at the Tevatron

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Associated production of W bosons with jets is one of the most important Standard Model (SM) processes in hadronic collisions. This is a so-called “standard candle,” which allows for testing and calibrating perturbative QCD calculations and Monte Carlo models in a multi-jet environment. The SM W-boson production in association with light and heavy flavor jets is the major background for Higgs boson and many new physics searches at the Tevatron and LHC colliders. The W+c-quark production also provides important information on the s-quark distribution function inside proton. Therefore, a detailed knowledge of this process is of paramount importance for the success of search programs at the Tevatron and LHC. In this presentation, I will report of the status of latest measurements of the SM W-boson production in association with inclusive and heavy flavor (c- and b-quarks) jets performed by the Tevatron experiments. I will briefly describe experimental techniques and provide a comparison of results with theoretical calculations and Monte Carlo predictions.