

## Electroweak corrections to $W$ +jet hadroproduction including leptonic $W$ -boson decays

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We present the first calculation of the next-to-leading order electroweak corrections to  $W$ -boson + jet hadroproduction including leptonic  $W$ -boson decays. The  $W$ -boson resonance is treated consistently using the complex-mass scheme and all off-shell effects are taken into account. The corresponding next-to-leading order QCD corrections have also been recalculated. All the results have been implemented in a flexible Monte-Carlo code. Numerical results for cross sections and distributions of this standard model benchmark process are presented for the Tevatron and the LHC.

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