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NLO QCD corrections to $VVjj$ production at the LHC

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These processes are important backgrounds to the measurement of the quartic gauge couplings of the Standard Model, to the Higgs signal via vector boson fusion, and to the search for signals of new physics beyond the Standard Model.

We present the first calculation of the next-to-leading order QCD corrections to the QCD-induced ZZ production in association with two jets at hadron colliders.

As expected, the next-to-leading order corrections reduce significantly the scale uncertainty and show a non-trivial phase space dependence in kinematic distributions.

Our code will be publicly available as part of the parton level Monte Carlo program VBFNLO

Summary

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