

Top-quark loops in $gg \rightarrow ZZ$ at NLO in QCD

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We present the calculation of the virtual corrections to $gg \rightarrow ZZ$ at next-to-leading order in QCD, focusing on the contribution from top quarks, which lacks a full analytic evaluation. The two-loop box diagrams are computed using a small-transverse-momentum expansion, and the results are merged with those available in the high-energy expansion, in order to obtain an analytic description in the complete phase space. Our results allow for an improved modeling of the continuum background in off-shell Higgs production.

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