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Higgs off-shell effects at NLO (15' + 5')

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There has been a lot of interest recently in the high-mass behavior of the Higgs boson in its decay to a pair of massive electroweak bosons. In this kinematic regime, the interference between Higgs-mediated amplitudes and continuum $gg \rightarrow VV$ amplitudes becomes significant and destructive. I will present the NLO QCD corrections to the interference, including corrections to the continuum massive loop processes calculated in the heavy top mass expansion. An understanding of the radiative corrections to this process is essential in order to exploit off-shell effects to understand properties of the Higgs boson.

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