

# Towards NNLO QCD corrections to Higgs boson pair production

*Thursday 18 July 2024 15:38 (17 minutes)*

Higgs boson pair production plays an important role in the determination of the Higgs boson self coupling, a major element in the LHC physics program. The predictions based on next-to-leading order corrections show a large dependence on the renormalization scheme of the top quark mass, which requires a next-to-next-to-leading order calculation. We show first results of the three-loop virtual corrections, expanded around the forward-scattering kinematics, which covers a large part of the phase space.

## Alternate track

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Yes

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**Session Classification:** Higgs Physics

**Track Classification:** 01. Higgs Physics