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## **[367] NLO QCD corrections to Higgs boson pair production via gluon fusion**

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The particle recently found at the LHC is compatible with the Standard Model Higgs boson. However, the current uncertainties allow associations with extended models thus rendering it essential to investigate the properties of this particle further. The Higgs potential, determined by the Higgs self-interactions, is believed to be the origin of EWSB. As a first experimental step to reconstruct the Higgs potential the trilinear coupling can be measured in Higgs-pair production. The dominant process is gluon fusion mediated by top- and bottom quark loops. The NLO QCD corrections with the full quark mass dependencies within the Standard Model are presented.

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