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Towards the full NLO electro-weak corrections in Higgs boson pair production

Measurement of the Higgs boson self interaction is one of the main goals at the high luminosity phase of LHC. A promising channel for this is the simultaneous production of two Higgs bosons from gluon-gluon fusion. For the interpretation of the measured data, a theoretical prediction of similar precision is needed. Following current projections this requires electroweak corrections at next-to-leading order.

This talk presents the contributions from top-Yukawa and Higgs self-interaction induced corrections as well as the first milestones towards inclusion of all electroweak effects in the calculation.

Secondary track

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