

Analytic electroweak corrections to gluon-fusion di-Higgs and Higgs plus jet production

Thursday 18 July 2024 15:04 (17 minutes)

We consider next-to-leading order electroweak corrections to Higgs boson pair production and to Higgs plus jet production in gluon fusion. This requires the computation of two-loop four-point amplitudes with massive internal particles such as top quarks, Higgs and gauge bosons. We perform analytic calculations in various kinematical limits and show that their combination covers the whole phase space, thus circumventing time-consuming numerical approaches.

Alternate track

I read the instructions above

Yes

Authors: ZHANG, Hantian (Karlsruhe Institute of Technology); DAVIES, Joshua (University of Liverpool); SCHÖNWALD, Kay (University of Zuerich); STEINHAUSER, Matthias

Presenter: ZHANG, Hantian (Karlsruhe Institute of Technology)

Session Classification: Higgs Physics

Track Classification: 01. Higgs Physics