

NLO QCD and electroweak corrections to Higgs strahlung off W/Z bosons at Tevatron and the LHC with HAWK

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Higgs strahlung off W/Z bosons at Tevatron and the LHC, $p\bar{p}/pp \rightarrow WH/ZH$, is an important process class for discovering a light Higgs boson. In the talk, first results on electroweak (and QCD) corrections for these reactions are shown that support the full differential information and the decays of the W/Z bosons, i.e. the actually considered processes are $p\bar{p}/pp \rightarrow l \nu H / l l H$. The precise knowledge of differential distributions is particularly important in view of the fact that reconstructing Higgs strahlung at the LHC has to proceed via the investigation of “fat b jets” of highly boosted Higgs bosons and that electroweak corrections usually show strong variations in transverse-momentum distributions. Both results and details of the calculation, which is embedded in the HAWK Monte Carlo generator first designed for Higgs production via vector-boson fusion, are presented.

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