

Phenomenology 2021 Symposium



Contribution ID: 1155

Type: QCD & EW

Two-loop QCD corrections to Wbb production at hadron colliders

Wednesday 26 May 2021 15:30 (15 minutes)

I will present an analytic computation of the two-loop QCD corrections to $ud \rightarrow Wbb$ for an on-shell W -boson using the leading colour and massless bottom quark approximations. We perform an integration-by-parts reduction of the unpolarised squared matrix element using finite field reconstruction techniques and identify an independent basis of special functions that allows an analytic subtraction of the infrared and ultraviolet poles.

Summary

Primary author: HARTANTO, Heribertus Bayu (Cambridge University)

Presenter: HARTANTO, Heribertus Bayu (Cambridge University)

Session Classification: QCD & EW I