ILC Workshop on Potential Experiments (ILCX2021)



Contribution ID: 91

Type: Oral presentation using Zoom

Higgs boson pair production at NNLO in the large top quark mass approximation

Thursday, 28 October 2021 13:40 (20 minutes)

We consider the next-to-next-to-leading order (NNLO) total cross section of Higgs boson pair production at LHC in the large top quark mass approximation.

At hadron collider, the partonic cross section consists of various initial states such as gluon-gluon, gluon-quark, quark-quark, and we calculated all of them analytically within this approximation.

We found that, in some cases, the corrections of 1/mt⁴ and 1/mt⁶ which we compute here enhance the NNLO cross section significantly.

1st preferred time slot for your oral presentation

13:00-15:00 JST (6:00-8:00 CEST, 0:00-2:00 EDT, 21:00-23:00 PDT)

2nd preferred time slot for your oral presentation

15:30-17:30 JST (8:30-10:30 CEST, 2:30-4:30 EDT, 23:30-1:30 PDT)

Primary author: MISHIMA, Go (Tohoku Univ.)

Presenter: MISHIMA, Go (Tohoku Univ.)

Session Classification: F-2: Higgs properties

Track Classification: Parallel sessions: Topical Groups: Session F: Higgs properties