

Measurement of Higgs to WW in the all-jet final state at CEPC $\sqrt{s}=250$ GeV

Wednesday, 29 July 2020 15:48 (18 minutes)

The most important pillar in the physics case of future electron-positron colliders in high energy physics is the measurement of the Higgs boson, with its main goal to precisely measure its properties and to probe potential of associated new physics. All next generation electron positron facilities in high energy physics will make use of the Higgstrahlung Higgs production channel. The physics potential of CEPC for measurement of the cross-section times branching ratio of subdominant decay $H \rightarrow WW^*$ is presented. The Higgstrahlung Higgs production channel is used, at the center of mass energy of 250 GeV. The fully hadronic decay, containing six soft-jets in the final state is of great importance for the detector design, jet pairing and reconstruction as showing the capability of CEPC for W/Z separation. The analysis is performed in full simulation.

Secondary track (number)

Primary author: PANDUROVIC, Mila (Vinca Institute of Nuclear Sciences, University of Belgrade, Serbia)

Presenter: PANDUROVIC, Mila (Vinca Institute of Nuclear Sciences, University of Belgrade, Serbia)

Session Classification: Higgs Physics

Track Classification: 01. Higgs Physics