### **EPS-HEP2021** conference



Contribution ID: 843 Type: Poster

# CP-violating Wtb anomalous couplings and top-quark decay process.

We consider the top-pair production through pp annihilation, followed by the semileptonic decay of the topquark. We study the new physics contributions to the Wtb vertex at the Large Hadron Collider. In particular, we estimate the limits on anomalous couplings for the pre-existing data of 13 TeV LHC energy with integrated luminosities of 36.1 fb^{-1} and 140 fb^{-1}. Prediction of limits on anomalous couplings for future hadron colliders, namely, HL-LHC, HE-LHC and FCC-hh is also discussed at the proposed luminosities. In addition, we construct CP-violating asymmetries to study the CP-violating effects arising due to Wtb vertex and give estimates on the sensitivity to CP-violating anomalous couplings.

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## **Collaboration / Activity**

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Track Classification: Top and Electroweak Physics