

CP Violating Top Yukawa Coupling at the Future Muon Collider

Thursday, May 26, 2022 11:36 AM (23 minutes)

We study the CP-violating top Yukawa coupling at a future muon collider with energies of 1, 3, 10, and 30 TeV. The processes under consideration are $t\bar{t}h$, $t\bar{t}h\nu\bar{\nu}$, and $tbh\nu\mu$. As we will show, at different energies the different processes dominate. Additionally, each process has a different dependence on the CP-violating top Yukawa. We will project 2σ exclusion and 5σ discovery limits for the CP-violation.

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Session Classification: Collider