

# Top-Yukawa coupling at future muon collider

*Tuesday 5 November 2024 16:20 (20 minutes)*

We study a CP-violating top Yukawa coupling at muon collider through  $\mu^- \mu^+ \rightarrow t\bar{t}h\nu\bar{\nu}$  process. The gauge invariant Lagrangian is obtained by a dimension-6 operator. Although the cross section and distributions are gauge invariant, amplitudes calculated in the Feynman Diagram (FD) gauge allow us to understand the origin of the energy and angular dependence of CP violating asymmetries, and may help us preparing the future search strategy.

## Primary track

Higgs physics at future colliders

## Is the speaker a PhD student or post-doc?

Yes - I need some financial support (fee reduction) to attend Higgs 2024

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**Session Classification:** Higgs physics at future colliders 2 - sal IV

**Track Classification:** Higgs physics at future colliders