



Contribution ID: 8

Type: **not specified**

## Constraining the top quark EFT using the top quark pair production in association with a jet at future lepton colliders

*Wednesday, 17 March 2021 22:00 (20 minutes)*

In this talk, we present the results for constraining the effective field theory describing the top quark couplings through the  $e^-e^+ \rightarrow t\bar{t} + \text{jet}$  process.

The analysis is performed at two center-of-mass energies of 500 and 3000 GeV considering a realistic simulation of the detector response and the main sources of background.

The expected upper limits at 95% CL are obtained on the new physics couplings using the dileptonic  $t\bar{t}$  final state.

We find that the 95% CL bounds on dimensionless Wilson coefficients considered in this analysis could be probed down to  $10^{-4}$ .

### Time Zone

Europe/Africa/Middle East

**Primary authors:** KHANPOUR, Hamzeh (IPM); MOHAMMADINAJAFABADI, Mojtaba (Institute for Research in Fundamental Sciences (IR)); ESLAMI, Parvin; JAFARI, Reza (IPM)

**Presenter:** MOHAMMADINAJAFABADI, Mojtaba (Institute for Research in Fundamental Sciences (IR))

**Session Classification:** PD2: Global Interpretations

**Track Classification:** Physics and Detectors Tracks: PD2: Global Interpretations