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Electromagnetic dipole moments of the τ -lepton at the ILC and CLIC

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We quantify the anomalous magnetic moment and electric dipole moment of the τ -lepton through the process $e^+e^- \rightarrow \tau^+\tau^-\gamma$, within the ranges of energies and luminosities affordable at the future International Linear Collider (ILC) and the Compact Linear Collider (CLIC). The tau-lepton is a key particle in various Beyond the Standard Model (BSM) models and is considered a laboratory for many experimental or simulation aspects in searches for new physics. In particular, the tau-lepton anomalous couplings to bosons in the $\tau^+\tau^-\gamma$ and $\tau^+\tau^-Z$ vertices, have made the tau-lepton one of the most attractive particles for new physics searches.

In-person participation

Yes

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