Contribution ID: **10** Type: **not specified**

Spin-correlation effects in tau-lepton pair induced by anomalous magnetic and electric dipole moments

Wednesday, May 29, 2024 11:45 AM (12 minutes)

Anomalous contributions to the magnetic and electric dipole moments of the tau lepton have brought renewed interest in the development of new CP violating signatures in tau-pair production at Belle II, and at higher energies of the Large Hadron Collider and the Future Circular Collider. We discuss spin correlations in the tau- tau+ pair produced in electron-positron and quark-antiquark annihilation, as well as in photon-photon collision. Effects of anomalous dipole moments are introduced on top of calculation of these processes in the Standard Model. The tau decays are simulated along with radiative corrections, in particular, electroweak box WW- and ZZ-exchange diagrams are taken into account.

Primary author: KORCHIN, Alexandr (NSC Kharkiv Institute of Physics and Technology, Kharkiv, Ukraine)

Presenter: KORCHIN, Alexandr (NSC Kharkiv Institute of Physics and Technology, Kharkiv, Ukraine)

Session Classification: Session V

Track Classification: Physics of LHC experiments