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Testing CP violating Higgs sectors at the International Linear Collider

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Extended Higgs models with CP violation have a possibility to solve the baryon number asymmetry of the universe by electroweak baryogenesis. However, the electric dipole moment (EDM), which is highly sensitive to new CP-violating effects, has not been observed so far. In this talk, we consider the testability of CP violation of a scenario in which the EDM is suppressed by cancellation among extra CP-violating phases. We discuss CP-violating effects appearing in the angular distribution of particles produced by the decay of extra Higgs bosons by using simulation results assuming future experiments at the International Linear Collider. This talk is based on arXiv:2101.03702 [hep-ph] and arXiv:2004.03943 [hep-ph].

Time Zone

Asia/Pacific

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