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Determination of CPV Higgs mixing angle in ZZ-fusion at 1 TeV ILC

Friday, 1 December 2023 10:00 (15 minutes)

With the current precision of LHC experiments, it is still possible that the 125 GeV mass eigenstate of the Higgs boson is a CP violating mixture of CP eigenstates of opposite parity. We investigate the possibility to measure CPV mixing angle in such scenario, assuming CP-odd admixture of up to 10%. Polarized ILC data are simulated employing the ILD detector, at 1 TeV center of mass energy. Result is discussed in the light of the theoretical precision target of 10-5 for CP violating factor fCP.

You are

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