

Prospects for Measuring Higgs Self-Coupling at FCC 100 TeV Hadron Collider

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We present the current status of measuring the trilinear Higgs coupling at FCC 100 TeV hadron collider. Direct measurement of the trilinear Higgs coupling is essential to understand the electro-weak symmetry breaking and the structure of the Higgs potential. Any deviation from the standard model could be a sign of new physics. The signal and background events are generated with Madgraph and simulated using Delphes fast Monte Carlo simulation based on the LHC detector capabilities. The double Higgs are produced in the process of gluon fusion as well as vector boson fusion. With 3 ab^{-1} data, it would be possible to observe $HH \rightarrow b\bar{b}\gamma\gamma$ signal at FCC 100 TeV hadron collider and measure the trilinear Higgs coupling.