

# The Higgs Physics Program at the International Linear Collider

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One of the key topics in the physics program of the ILC is the precision measurement of the couplings of the Higgs boson. The two main production modes, ZH production and W boson fusion, provide access to all major Higgs boson decay modes with relatively small backgrounds. The ZH process provides the possibility for a model-independent tagging of Higgs production, allowing measurement of absolute branching ratios and the observation of invisible and other exotic decays. At higher energies, the W fusion process gives high rates for precision measurements and allows the model-independent determination of the Higgs boson width and the individual Higgs couplings. At energies of 500 GeV and above, rarer production modes provide direct access to the top Yukawa coupling in ttH events and the measurement of the Higgs self coupling in double Higgs production. This contribution will provide an overview of the Higgs physics program at ILC, with results from full-simulation studies in the ILC detector concepts.

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