

Signatures of anomalous VVH interactions at a linear collider

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We examine, in a model independent way, the sensitivity of a Linear Collider to the couplings of a light Higgs boson to gauge bosons. Including the possibility of CP violation, we construct several observables that probe the different anomalous couplings possible. For an intermediate mass Higgs, a collider operating at a center of mass energy of 500 GeV and with an integrated luminosity of 500 $1/\text{fb}$ is shown to be able to constrain the ZZH vertex at the few per cent level, and with even higher sensitivity in certain directions. However, the lack of sufficient number of observables as well as contamination from the ZZH vertex limits the precision with which the WWH coupling can be measured.

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