Contribution ID: **30** Type: **not specified**

Decay-mode independent searches for new Higgs-like scalar at a future e+e- collider

Many BSM models predict the existency of Higgs-like scalars. Future e+e- colliders are specially suited for searching these scalars, for instance in associated production with a Z boson. The most model-independent search is based on the recoil of the scalar against the Z boson. This project will determine the sensitivity of a e+e- linear collider at center-of-mass energy 550 GeV to these new scalars, extending a study recently done at 250 GeV to higher scalar masses. The search will be based on a detailed simulation of the International Large Detector (ILD) originally proposed for the ILC.

Group

FH-FTX

Project Category

B1. Physics data analysis and performance (software-oriented)

Special Qualifications

Good programming skills, mainly cpp and python, some knowledge of root adventageous.
Interest in physics prospects of future colliders.

DESY Site

Hamburg

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