

31st International Symposium on Lepton Photon Interactions at High Energies



Contribution ID: 67 Contribution code: P10

Type: **Poster**

Higgs physics with ILC

Monday 17 July 2023 17:57 (1 minute)

With technically mature design and well understood physics program, ILC is a realistic option for realization of a future Higgs factory. Energy staged data collection, employment of beam polarization and capability to reach a TeV center-of-mass energy, enable unique sensitivity to New Physics's deviations from the Standard Model predictions, also in the Higgs sector. Coupling precisions of the order of 1% and better are necessary to pin down a concrete New Physics model. Measurement of the Higgs self-coupling as a shaping parameter of the Higgs potential will benefit from the accessibility of high-energy scales (500 GeV and above). Clear environment of e^+e^- collisions, together with the rising cross-sections of the processes of interest with increasing center-of-mass energy, enable CP properties of the Higgs boson to be probed in numerous production and decay vertices. These and other ILC measurements will be highlighted in this talk.

Author: KLAMKA, Jan Franciszek (University of Warsaw (PL))

Presenter: KLAMKA, Jan Franciszek (University of Warsaw (PL))

Session Classification: Reception and poster presentation

Track Classification: Collider precision