

The 2025 International Workshop on the High Energy Circular Electron Positron Collider

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FCC-ee Higgs summary

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The Future Circular Collider (FCC) is a post-LHC project presenting unparalleled opportunities to thoroughly examine Higgs properties. The electron-positron stage of FCC (FCC-ee), featuring operation modes at 240 and 365 GeV, will produce millions of Higgs bosons through the ZH and VBF processes. Benefiting from the clean experimental environment and the precisely known center-of-mass energy, model-independent measurements of the ZH cross-section and total Higgs width can be performed at per-mil precision. Utilizing the recoil-mass technique, the Higgs boson mass will be measured with a precision of a few MeV. With the efficient particle reconstruction and flavor tagging performance, Higgs couplings to quarks and gluons can be probed with sub-percent to percent precision. This talk summarizes the prospects of Higgs physics at FCC-ee.

Presenter: Dr ZUO, Xunwu (EPFL)

Session Classification: Higgs