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FCC synergies for Higgs physics

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Precision measurements and searches for new phenomena in the Higgs sector are among the most important goals in particle physics. Experiments at the Future Circular Colliders (FCC) are ideal to study these questions. Electron-positron collisions (FCC-ee) up to an energy of 365 GeV provide the ultimate precision with studies of Higgs boson couplings, mass, total width, and CP parameters, as well as searches for exotic and invisible decays. Very high energy proton-proton collision (up to 100 TeV) provided by the FCC-hh will allow studying the Higgs self-coupling. There is a remarkable complementarity of the FCC-ee and FCC-hh colliders, which in combination offer the best possible overall study of the Higgs boson properties.

speaker known

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