

Evaluating the Sensitivity of Future Higgs Factories to Exotic Scalars

An electron-positron collider for precision studies of the Higgs boson has been identified as the highest-priority next collider for particle physics. Besides studying the 125-GeV Higgs boson in much greater detail than the LHC will be able to do, such “Higgs Factories” are also ideally suited to search for additional Higgs bosons or, more generally, scalar particles produced in association with a Z boson. This project will specifically evaluate the prospects of various Higgs factories for the case that the exotic scalar decays into a pair of b quarks, which is one of the high-priority topics of the ECFA Higgs/Top/EW Factory Study.

Group

FTX-SLB

Project Category

B1. Physics Data Analysis and Performance (software-oriented)

Special Qualifications

Knowledge of C++ and/or root would be helpful.

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