

## Higgs couplings to fermions

*Tuesday, May 16, 2023 5:05 PM (25 minutes)*

The mechanism of fermion mass generation via the Higgs Yukawa interactions remains to be mysterious because of the large mass hierarchies, many free parameters, and their arbitrary flavor mixing patterns. Scrutinizing the fermionic sector associated with the Higgs properties is of high priority. In this talk, I reiterate the fermion mass and flavor puzzles. I propose some experimental studies to probe the Yukawa couplings for the second-generation fermions at hadron and lepton colliders, such as the High-Luminosity LHC and a future muon collider.

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**Session Classification:** Collider