

# Prospects for single Higgs couplings measurements at the multi-TeV muon collider

*Tuesday 5 November 2024 14:30 (20 minutes)*

Muon collisions at multi-TeV center-of-mass energies provide an ideal environment for studying Higgs boson properties. At these energies, the high production rates and low background contributions allow for precise measurements of Higgs couplings to fermions and bosons. This contribution aims to provide an overview of the results obtained at a center-of-mass energy of 3 TeV, as well as perspectives on the precision of cross-section measurements at 10 TeV center-of-mass energy, using detailed detector simulations and taking into account both physics and machine-induced background contributions.

## Primary track

Higgs physics at future colliders

## Is the speaker a PhD student or post-doc?

No

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**Session Classification:** Higgs physics at future colliders 1 - sal IV

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