Contribution ID: **34**   Type: **not specified**

Automatizing the path from Lagrangian to Higgs physics constraints

Wednesday, September 24, 2025 6:00 PM (15 minutes)

FlexibleSUSY is a framework for an automated computation of physical quantities in non-supersymmetric and supersymmetric models starting from the most basic model building blocks, namely the particle content and the Lagrangian. Among a plethora of observables that it supports, it is also capable of computing decay widths of Higgs sector particles with precision comparable to the current experimental accuracy.

In this talk I will discuss the recently created interface between FlexibleSUSY and **HiggsTools**/ **Lilith** that allows to asses the global agreement of a BSM model Higgs sector with experimental data. This extension provides a fully automatized chain leading directly from a user defined BSM model to the determination of the viability of that model in terms of a p-value.

Primary author: KOTLARSKI, Wojciech (National Centre for Nuclear Research (PL))

Presenter: KOTLARSKI, Wojciech (National Centre for Nuclear Research (PL))

Session Classification: Parallel 6

Track Classification: Parallel