## Towards automatizing Higgs decays in BSM models at one-loop in the decoupling renormalization scheme

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High-precision calculations of Higgs boson observables can be used to constrain models of the Beyond the Standard Model (BSM) physics. Motivated by the non-observation of light BSM particles at the LHC, in this talk I will discuss a renormalization scheme for precise predictions of Higgs boson decays in the presence of a moderatelly heavy BSM physics at the 1-loop level. I will cover the basics of regularization and renormalization. Special focus will be on the decoupling renormalization scheme, where I will present the renormalization conditions for a generic model. I will also show application of the decoupling scheme in a concrete model to explore its effects. This calculation is a part of FlexibleSUSY spectrum-generator generator and will be automatically applied to any user defined BSM model in the future.

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