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SModelS – a tool for interpreting simplified-model results from the LHC

SModelS is an automatic, public python tool for interpreting simplified-model results from searches for new physics at the LHC. It is based on a general procedure to decompose Beyond the Standard Model (BSM) collider signatures presenting a Z2 symmetry into Simplified Model topologies. Our method provides a way to cast BSM predictions for the LHC in a model independent framework, which can be directly confronted with the relevant experimental constraints in an automated fashion. Our database contains simplified models results of about 100 CMS and ATLAS publications.

In this notebook talk, we wish demonstrate typical usage patterns of SModelS. We aim to show how a model is input, the list of analyses results that apply is obtained, and how likelihoods are computed. In the last part of the talk we shall quickly present new features of the upcoming v2.0 release of SModelS.

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