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Constraining extended Higgs sectors with HiggsSignals

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We present the new public code HiggsSignals, which provides a consistent test of arbitrary Higgs sectors against measurements at hadron colliders, including the signal for a Higgs-like particle observed at the LHC. Using information on the measured mass and decay rates in all the available channels from ATLAS, CMS, and the Tevatron experiments, we derive constraints on extended Higgs sectors. The results are presented both in a model-independent framework, which can be used to parametrize deviations from the Standard Model, and in a model-dependent example with results from a comprehensive analysis of the MSSM parameter space.

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