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MSSM Higgs Interpretations after LHC Run 1

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Focussing on the MSSM Higgs sector, we present a multi-dimensional fit of the pMSSM to the LHC Run 1 results, taking into account the measurements of Higgs and low energy observables as well as constraints from direct SUSY searches. We investigate in how much the MSSM can provide a good description of the experimental data, and which parts of the MSSM parameter space are favoured. We analyse different viable scenarios where the Higgs signal is interpreted either as the light MSSM Higgs (via decoupling or alignment) or as the heavy MSSM Higgs.

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