53rd Rencontres de Moriond - EW 2018



ID de Contribution: 133 Type: YSF (Young Scientists Forum)

Simplified gaugino-higgsino models (MSSM)

mardi 13 mars 2018 19:59 (5 minutes)

We will talk about simplified MSSM models for light neutralinos and charginos with realistic mass spectra and realistic gaugino-higgsino mixing, that can be used in experimental searches at the LHC. The formerly used naive approach of defining mass spectra and mixing matrix elements manually and independently of each other does not yield genuine MSSM benchmarks. Therefore, we suggest the use of models, whose mass spectra and mixing matrix elements are the result of a proper matrix diagonalisation. We scan over only the four relevant parameters $\{\mu, \tan \beta, M_1, M_2\}$ for a grid of neutralino and chargino masses, having defined a measure for the quality of the fit, that can also include criteria such as a maximal gaugino or higgsino content.

Summary

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