Scalars 2019

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The Higgs mass in the MSSM: precise prediction from the FlexibleEFTHiggs method with 3-loop matching

Saturday 14 Sep 2019 at 14:00 (00h30')

Content :

The SM-like Higgs boson mass can be predicted in the MSSM. Loop corrections are very important in this prediction. Leading 2-loop and even 3-loop corrections can be significantly larger than the experimental uncertainty reached at the LHC. After giving a review of different possible methods we focus on a recent calculation done in the context of FlexibleSUSY: FlexibleEFTHiggs. This calculation is a so-called hybrid calculation; it combines advantages of fixed-order calculations with resummation of large logs. It takes into account up to fixed-order 3-loop corrections and resums up to NNN-leading logarithms.

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