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Three Loop Corrections to the MSSM Higgs Boson Mass

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We consider radiative corrections to the mass of the lightest Higgs Boson in the MSSM. In particular, the three-loop SUSY-QCD corrections are computed. We find that our corrections are of the order of 500MeV and thus relevant for both LHC and ILC. The scale dependency of the Higgs mass gets reduced by an order of magnitude compared to previous two-loop calculations, suggesting stability of the perturbative expansion.

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