Higgs boson self couplings in the MSSM

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Abstract

The Higgs sector in the MSSM is known to receive large radiative corrections at one-loop level, coming from top and stop loops. The $\mathcal{O}(\alpha_t \alpha_s)$ loop radiative corrections to the MSSM Higgs masses and self couplings can be determined by the effective potential method, which is equivalent to the exact diagrammatic result in the limit of vanishing external momenta. This talk will cover a review about the effective potential method applied to the MSSM Higgs sector and its renormalization at two-loop order. Preliminary numerical results will be presented.