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Physical constraints on Higgs masses and quartic couplings in the two Higgs Doublet Model

Abstract content

In the framework of the two Higgs Doublet Model we graphically illustrate the energy dependence of the Higgs masses and the quartic couplings. Our results are based on the theoretical constraints on the quartic Higgs couplings through the stability and triviality principles that are obtained, using the Lagrange multipliers method and the numerical solutions of the Renormalization Group Equations, that give the energy dependence of the parameters of the Lagrangian. From these solutions we can also establish the region of validity of the model in terms of the initial conditions of the parameters

Summary

Primary author(s) : Mr. MORALES CRUZ, Damasio (Escuela Superior de Física y Matemáticas del Instituto Politécnico Nacional (ESFM-IPN))

Co-author(s) : Prof. JUÁREZ WYSOZKA, S. Rebeca (Escuela Superior de Física y Matemáticas del Instituto Politécnico Nacional (ESFM-IPN)); Prof. KIELANOWSKI, Piotr (Departamento de Física del CINVESTAV-IPN)

Presenter(s) : Mr. MORALES CRUZ, Damasio (Escuela Superior de Física y Matemáticas del Instituto Politécnico Nacional (ESFM-IPN))

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