

# Power law for blue-coupled Higgs interactions in a nonlinear field: Classically black Higgs interactions

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## Abstract

We study the power law of the Higgs interactions in a nonlinear field in the presence of a non-minimal coupling between the electroweak Higgs and the strong gauge theory. The power law is obtained by using the Lie group of the Higgs theory and the Higgs potential of the Higgs field in the presence of an optional non-minimal coupling between the Higgs and a scalar field. The power law can be modified by adding an additional scalar field and the power law can be obtained by using the Lie group of the Higgs theory.