

Higgs self-coupling as a probe of sphaleron properties

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Sphaleron is a non-perturbative solution of electroweak gauge theories, which is crucially important for various scenarios of baryogenesis. In many of new physics models, the deviation in the sphaleron energy from the standard-model prediction is proportional to that in the triple Higgs boson coupling with opposite signs. This interesting relation would be useful to determine the sphaleron property by measuring the Higgs self-coupling at future collider experiments.

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