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Particle Physics at LPTHE

Mardi 27 Novembre 2018, 14 :00
LPTHE, Library
Domaines : hep-ph

Titre : *An Effective Approach to Electroweak Baryogenesis*

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Résumé : *Effective field theory is an attractive framework to study Electroweak Baryogenesis in a model-independent way. We add a dimension-six operator to the Higgs potential in order to have a strongly first order phase transition, which is necessary for successful baryogenesis. Another necessary ingredient is CP- violation, which can be provided by dimension-six interactions between the Higgs and, for example, the top quark. We study two of these operators that are related by the equations of motion. In our study we test the applicability of the effective field theory framework to electroweak baryogenesis. We also make a comparison between the asymmetries obtained from CP-violating interactions involving the top-quark and the tau-lepton.*