

Reduction of Couplings in the 2HDM

Thursday 6 June 2024 18:40 (20 minutes)

The method of reduction of couplings consists in the search for relations between seemingly independent couplings that are renormalization group invariant. In this talk the existence of such 1-loop relations among the top Yukawa, the Higgs quartic and the gauge colour couplings of the Type-II Two Higgs Doublet Model at a high-energy boundary is demonstrated. The phenomenological viability of the reduced theory suggests the value of $\tan\beta$ and the scale in which new physics may appear.

Primary authors: Dr PATELLIS, Gregory (Instituto Superior Técnico, CFTP); MAY PECH, Miguel Angel (Universidad Nacional Autonoma de Mexico UNAM); MONDRAGON, Myriam (Universidad Nacional Autonoma de Mexico UNAM); ZOUPANOS, George (National Technical Univ. of Athens (GR))

Presenter: Dr PATELLIS, Gregory (Instituto Superior Técnico, CFTP)

Session Classification: Parallel Session PII.6