Seminarium Studium Doktoranckiego NCBJ

Thursday, 5 November, 9:00

https://www.gotomeet.me/NCBJmeetings/phd-seminar

Speaker:

Victor Martínez-Fernández (Studium Doktoranckie NCBJ)

Title:

CP violation in the Minimal Linear sigma Model

Abstract:

In this seminar we review the generalities of composite Higgs (CH) models that aim to solve the Standard Model hierarchy problem with the introduction of the Higgs as a Nambu-Goldstone boson as well as a new strong sector with new heavy particles. In particular we work with a renormalizable CH model, the Minimal Linear sigma model (MLsM). The phenomenology of this model is extended with the study of the electron electric dipole moment (eEDM) in accordance with the experimental constraints furnished by the ACME Collaboration in order to set limits on the MLsM CP-violating phases.

Our interest in the eEDM stems from the fact that a non-zero value implies CP violation. Since it is a low-energy observable, we perform an integration-out of the heavy fields, obtaining an effective field theory that at 2 loop describes an eEDM (Barr-Zee diagram).