

Hunting Composite Higgs model UV completions in di-boson and $t\bar{t}$ searches at the LHC

Tuesday, 6 September 2016 09:00 (1 hour)

Abstract: Models of compositeness can successfully address the origin of the Higgs boson, as a pseudo-Goldstone of a spontaneously broken global symmetry, and flavour physics via the partial compositeness mechanism. If the dynamics is generated by a simple underlying theory defined in terms of a confining gauge group with fermionic matter content, there exists only a finite set of models that have the correct properties to account for the Higgs and top partners at the same time. As a prediction, one obtains additional light scalars. We study the phenomenology of these additional scalars in light of the di-boson and $t\bar{t}$ searches at LHC. based on: PRD94 (2016) no.1, 015004, and work in progress in collaboration with A. Belyaev, G. Cacciapaglia, H. Cai, G. Ferretti, A. Parolini, H. Serodio

Presenter: Dr THOMAS, Flacke

Session Classification: Composite dynamics