

Standard candles for partial compositeness

Models of composite Higgs with partial compositeness in the top sector have been gaining popularity as a candidate for BSM physics. Usually, composite fermions, aka top partners, are considered as the smoking gun of such models. However, their masses may be high and out of reach for the LHC. Based on a simple underlying realisation, I will discuss the role of additional light scalars that decay to a pair of gauge bosons via the WZW anomaly term. This leads to highly predictive phenomenology at the LHC as the branching ratios and production rates can be computed. Thus, the presence of diboson resonances can be considered a standard candle for this class of models, which can be disfavoured in case of lack of signals at the LHC Run II. The phenomenology of additional light scalars, like coloured ones, and the role of Lattice calculations will be touched upon.

I intend to submit my contribution for the proceedings

Yes

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