

(at least for a particular choice of the extra-dimensional background) in the 5D model it is meaningful to reintroduce an Higgs field, delaying unitarity violation to a scale  $\gtrsim 10$  TeV. In the “holographic” interpretation of  $\text{AdS}_5$  models [63, 64], inspired by the AdS/CFT correspondence, this Higgs can be thought as a composite state and thus does not suffer from the hierarchy problem. The 5-dimensional D-BESS (5D-DBESS) on  $\text{AdS}_5$  then provides a coherent description of the low energy phenomenology of a new strongly interacting sector up to energies significantly beyond the  $\sim 2$  TeV limit of the Higgsless SM, still showing a good compatibility with EW precision observables. While studying this 5D extension, furthermore, we have clarified a not-so-obvious fact: there is at least a particular limit, where the 5D-DBESS can be related to a realization of the RS1 model [5], specifically the one proposed in ref. [20].

In Section II we review the generalization of D-BESS to  $N$  sites. In Section III we extend the model to five dimensions clarifying how the boundary conditions at the ends of the 5D segment emerge from the deconstructed version of the model. The 5D model is described by a  $SU(2)_L \times SU(2)_R$  bulk Lagrangian with boundary kinetic terms, broken both spontaneously and by boundary conditions. In Section IV we develop the expansion in mass eigenstates consisting in two charged gauge sectors, left (including  $W$ ) and right, and one neutral (including the photon and the  $Z$ ). We also get the expanded Lagrangian for the modes. In Section V we derive the low energy Lagrangian by means of the holographic technique and the EW precision parameters  $\epsilon_{1,2,3}$ . In Section VI we show the spectrum of KK excitations and derive the bounds from EW precision measurements on the model parameters for two choices of the 5D metric, the flat case and the RS one. Conclusions are given in Section VII. In Appendix A, by following [65, 66], we develop the technique for Kaluza-Klein expansion.