Standard Model and beyond within the framework of Non-Commutative Geometry COSMIN MACESANU, KAMESHWAR C. WALI, Syracuse University — We study the minimal Standard Model, Left-right Symmetric Model and their extensions within the framework of a discretized Kaluza-Klein version of a two-sheeted space-time. Left- and right- chiral fields live on two separate sheets. The main virtue of this approach is that it treats gauge fields and Higgs fields on a similar geometrical footing leading to a definite spontaneous symmetry breaking pattern. This results in a number of predictions concerning the Higgs sector of our theory.

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