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Evolution of gauge couplings and Weinberg angle in 5-dimensions for an SU(5), flipped SU(5) and G_2 gauge group

We explicitly test, in a simplified 5-dimensional model with $SU(5)$, $SU(5) \times U(1)'$ and G_2 gauge symmetry, the evolution
of the gauge couplings. We assume that all the matter fields are propagating in the bulk, and consider orbifolds based on Abelian discrete groups which lead to 5-dimensional gauge theories compactified on an S^1/Z_2. The gauge couplings evolution is derived at one-loop level and used to test the impact on lower energy observables, in particular the Weinberg angle.

I intend to submit my contribution for the proceedings

Yes

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