

## Flavor symmetries in heterotic orbifolds

### Abstract

In this work, we study the flavor symmetries associated to phenomenologically viable models in abelian toroidal orbifolds of the  $E_8 \times E_8$  heterotic string, including those with roto-translations. We study the breaking of non-abelian flavor symmetries groups when Wilson lines are present in those models and focus on models where the MSSM is a possibility; with that in mind, we make a scan and count models according to their symmetry for determining the most frequent flavor symmetries appearing in semi-realistic string compactifications.

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