

# Flavor Symmetry and Grand Unification

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The combination of flavor symmetry with grand unification is considered. The flavor group  $SO(3)$  is used. For the flavon fields (singlets with respect of the GUT group) and the Higgs fields (singlets with respect to the generation group) a simple form for the effective potentials is postulated. It is applied to describe the spontaneous symmetry breaking of flavon fields which are responsible for fermion mass hierarchy and fermion mixings. Similarly, the invariant potential for the Higgs field of an  $E_6$  GUT has minima which can be tuned to give simultaneously low and very high Higgs mass values.

**Author:** Prof. STECH, Berthold (Heidelberg University)

**Presenter:** Prof. STECH, Berthold (Heidelberg University)

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