

Abstract Submitted  
for the APR17 Meeting of  
The American Physical Society

**Spontaneous Breaking of Lie Groups to Discrete Symmetries<sup>1</sup>**

BRADLEY RACHLIN, THOMAS KEPHART, Vanderbilt Univ — Many models of beyond Standard Model physics connect flavor symmetry with a discrete group. Having this symmetry arise spontaneously from a gauge theory maintains compatibility with quantum gravity and prevents anomalies. We detail ways to set up Higgs potentials to break gauge groups to discrete symmetries of interest. The scalar mass spectra are examined.

<sup>1</sup>Research Assistantship funded by Department of Energy (DOE)

Bradley Rachlin  
Vanderbilt Univ

Date submitted: 21 Sep 2016

Electronic form version 1.4