Contribution ID: **455** Type: **Presentation**

Gauge Model for Minimal Flavor Violation

Monday, 31 July 2017 11:57 (18 minutes)

We present a flavor gauge model based on $O(3)_L \times O(3)_R$ gauge symmetry, a maximal anomaly-free subgroup of the standard model flavor symmetry. In this model the fermion mass hierarchy has a dynamical origin. The model provides a UV complete realization of the Minimal Flavor Violation Hypothesis. Implications for quark sector and lepton sector flavor violation arising through higher dimensional effective operators involving the Higgs field are outlined. CP violation arising from these operators is also studied. Vector-like fermions responsible for the generation of the top quark, bottom quark, and the tau lepton masses are in the TeV range, and potentially within reach of the LHC.

Primary author: BABU, K.S. (Oklahoma State University)

Co-author: SAAD, Shaikh (Oklahoma State University)

Presenters: BABU, K.S. (Oklahoma State University); SAAD, Shaikh (Oklahoma State University)

Session Classification: Quark and Lepton Flavor

Track Classification: Quark and Lepton Flavor