

Phenomenology 2021 Symposium



Contribution ID: 1186

Type: **Flavor**

A Supersymmetric Flavor Clockwork

Tuesday 25 May 2021 17:15 (15 minutes)

Clockwork models can explain the flavor hierarchies in the Standard Model quark and lepton spectrum. We construct supersymmetric versions of such flavor clockwork models. The zero modes of the clockwork are identified with the fermions and sfermions of the Minimal Supersymmetric Standard Model. In addition to generating a hierarchical fermion spectrum, the clockwork also predicts a specific flavor structure for the soft SUSY breaking sfermion masses. We find sizeable flavor mixing among first and second generation quarks. Constraints from Kaon oscillations require the masses of either squarks or gluinos to be above a scale of ~ 3 PeV.

Summary

Authors: GADAM, Sri Aditya (University of California, Santa Cruz); Prof. ALTMANNSHOFER, Wolfgang (UC Santa Cruz)

Presenter: GADAM, Sri Aditya (University of California, Santa Cruz)

Session Classification: SUSY II