The 28th International Workshop on Weak Interactions and Neutrinos (WIN2021)



Contribution ID: 186 Type: Poster session

Vector like dark matter, neutrino mass and flavor anomalies in leptoquark model

We make a comprehensive study of vector-like fermionic dark matter and flavor anomalies in a simple extension of standard model. The model is added with doublet vector-like fermions, of quark and lepton type. An additional lepton type singlet fermion is included, whose admixture with vector-like lepton doublet is examined in relic density and direct detection perspective. Furthermore, two leptoquarks, one scalar-type $(\bar{\bf 3},{\bf 1},\ 1/3)$ and a vector-type $(\bar{\bf 3},{\bf 1},\ 2/3)$ are introduced to study flavor anomalies. Neutrino mass is generated at one-loop level with the leptoquarks running in the loop.

Primary authors: SAHOO, Suchismita (Central University of Karnataka, Karnataka); SINGIRALA, SHIVARA-MAKRISHNA (University of Hyderabad); MOHANTA, Rukmani (University of Hyderabad)

Presenter: SAHOO, Suchismita (Central University of Karnataka, Karnataka)

Session Classification: Flavor and Precision Physics Session 2

Track Classification: Flavor and Precision Physics