Contribution ID: **669** Type: **Parallel**

Quark-lepton correlations in gauge anomaly free abelian extension of the Standard Model

Wednesday 9 July 2025 10:15 (15 minutes)

We consider a NP scenario with a new heavy neutral gauge boson Z'and the associated gauge symmetry U(1)' . The heavy Z'gauge boson has flavour non-universal quark and lepton couplings fixed in a such a way that the gauge anomalies generated by the presence of an additional U(1)'gauge symmetry cancel. This implies correlations between FCNC processes within the quark sector, within the lepton sector and most interestingly between quark flavour and lepton flavour violating processes. We describe in details the features of this model and work out predictions for lepton flavor violating rare and forbidden decays, as well as correlations among them.

Secondary track

T09 - Beyond the Standard Model

Author: DE FAZIO, Fulvia (INFN Sezione di Bari)

Presenter: DE FAZIO, Fulvia (INFN Sezione di Bari)

Session Classification: T09 (Beyond the Standard Model)

Track Classification: T09 - Beyond the Standard Model