

Contribution ID: 115

Type: Regular Talk (15'+5')

Singlet vector leptoquark explanation of the B meson anomalies

Monday 29 November 2021 16:05 (20 minutes)

Experimental measurements collected by the BABAR, Belle, and LHCb experiments on different observables associated with semileptonic *B* meson decays, indicate the existence of disagreement with the Standard Model (SM) predictions. We reexamine the new physics scenario in which the SM is extended by a singlet vector leptoquark (LQ) with a TeV-scale mass to accommodate the above mentioned anomalies. We perform a phenomenological study of the allowed couplings parameter space by including the most recent data, as well as bounds from LFV processes of B meson (and tau lepton) and LHC. We show that the singlet vector LQ is (still) an appealing solution providing a simultaneous explanation to the B meson anomalies.

Author: QUINTERO POVEDA, Nestor (Universidad Santiago de Cali)
Presenter: QUINTERO POVEDA, Nestor (Universidad Santiago de Cali)
Session Classification: Heavy Flavour

Track Classification: Heavy Flavour