Contribution ID: **205** Type: **Talk**

Angular analysis of modes with $b \to c\ell\bar{\nu}$ transition and new physics

Friday, 31 July 2020 11:29 (15 minutes)

We discuss the four-fold angular distribution for the semileptonic decay $\bar{B} \to D_2^*(\to D\pi)\,\ell\bar{\nu}$ where $D_2^*(2460)$ is a tensor meson. We start with the most general beyond the Standard Model (SM) dimension-six effective Hamiltonian which comprises (axial)vector, (pseudo)scalar and tensor operators for both quark and lepton currents, and it also includes the right-handed neutrinos. The decay can be described by 16 transversity amplitudes and it provides a multitude of observables which can be extracted from data. We investigate the observables in the context of the SM and the new physics scenarios which can explain the intriguing discrepancies observed in the $b \to c\tau\bar{\nu}$ data.

I read the instructions

Secondary track (number)

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