

Impact of (axial)vector coefficients on $B \rightarrow K_1 \ell \ell$ decay modes

Friday 1 October 2021 10:50 (2 hours)

We analyse the rare semileptonic decays of B meson to axial vector mesons $K_1(1270)$ and $K_1(1400)$ mediated by the flavor changing neutral current $b \rightarrow s \ell \ell$ quark level transition, in an effective field theory approach. We perform a global fit to all the relevant and up-to-date $b \rightarrow s \ell^+ \ell^-$ data for various sets of (axial)vector couplings. We then look over the implications of the allowed parameter space on the branching ratios and several physical observables such as forward-backward asymmetry, lepton polarization asymmetry and lepton flavor universality violating parameters of $B \rightarrow K_1 \ell^+ \ell^-$ processes.

What is your topic?

Rare decays

Authors: MOHAPATRA, Manas (IIT HYDERABAD); SAHOO, Suchismita (Central University of Karnataka)

Presenter: SAHOO, Suchismita (Central University of Karnataka)

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