

P-wave form factors from the inclusive semileptonic $B \rightarrow X_c \ell \nu$ decays

Tuesday, 4 August 2020 17:20 (20 minutes)

We report our estimation for the Isgur-Wise form factors for the inclusive semileptonic $B \rightarrow X_c \ell \nu$ on 2+1-flavor lattice QCD.

The Möbius domain-wall fermion action is used for light, strange, charm and bottom quarks. The structure function receives contributions from various exclusive modes, including the dominant S-wave states $D_s^{(*)}$ as well as the P-wave states D_s^{**} . In this work, we identify and separate these contributions in the lattice data, from

which we put some constraints on the $B_s \rightarrow D_s^{**} \ell \nu$ form factors. Our work takes into account the structure functions for the cases of zero-recoil and non-zero recoil.

Primary author: BAILAS (*), Gabriela (KEK)

Co-authors: HASHIMOTO, S.; KANEKO, T.

Presenter: BAILAS (*), Gabriela (KEK)

Session Classification: Hadron Spectroscopy and Interactions

Track Classification: Hadron Spectroscopy and Interactions