

I will discuss lattice predictions for the form factors of the charged currents $b \rightarrow u\ell\bar{\nu}$ and $b \rightarrow c\ell\bar{\nu}$ relevant for exclusive determinations of $|V_{ub}|$ and $|V_{cb}|$ respectively.

For $b \rightarrow u\ell\bar{\nu}$ I will talk about:

- ▶ The new form factors for $B \rightarrow \pi\ell\bar{\nu}$ from JLQCD.
- ▶ Work underway on $B_s \rightarrow \{K, D_s\}\ell\bar{\nu}$ and $B \rightarrow \pi\ell\bar{\nu}$ from HPQCD and Fermilab/MILC.
- ▶ Preliminary HPQCD decay constants for $B^{(*)} \rightarrow \ell\bar{\nu}$, including tensor decay constants.

For $b \rightarrow c\ell\bar{\nu}$ I will talk about:

- ▶ The main focus of my talk will be on the three recent JLQCD, HPQCD and Fermilab/MILC $B \rightarrow D^*$ form factor calculations.
- ▶ The disagreement of the HPQCD FFs with the HQE results of 1912.09335, looking at form factors and the ratios R_0 , R_1 , R_2 .
- ▶ Tensions seen in the shape between LQCD and the results from Belle, as well as the determined value of V_{cb} using either the total rate or the fit to the full angular distribution for $B \rightarrow D^*$.
- ▶ Prospects for lattice calculations of the $B \rightarrow D^*$ FFs in the near future, including what statistical and methodological improvements can be made.

I will also talk briefly about inclusive V_{ub} and V_{cb} determinations on the lattice.