

Semileptonic B(s) decays

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Form factors describing exclusive semileptonic $B_{(s)}$ decays allow e.g. to extract the CKM matrix elements $|V_{ub}|$ and $|V_{cb}|$ or obtain predictions for R-ratios testing lepton flavor universality. Using the framework of lattice quantum chromodynamics, we present our results for the semileptonic $B_s \rightarrow D_s \ell \nu$, $B_s \rightarrow K \ell \nu$, and $B \rightarrow \pi \ell \nu$ decays.

First we obtain scalar and vector form factors with full error budget for the range of momentum transfer directly accessible in our simulations. Next we show z -parameterization fits to extend q^2 over the kinematically allowed range. These results are used to extract CKM matrix elements, predict R -ratios or perform comparisons to other works.

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