

Semi-leptonic form factors for $B_s \rightarrow K \ell \nu$ and $B_s \rightarrow D_s \ell \nu$

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We report on our determination of form factors for B_s semi-leptonic decays and extract ratios to investigate lepton flavor universality violations. Our calculation is based on RBC-UKQCD's gauge field ensembles featuring 2+1 flavors of domain-wall fermions and Iwasaki gauge action at three lattice spacing of $1/a = 1.78, 2.38, \text{ and } 2.77$ GeV. In the valence sector we use domain-wall light, strange, and charm quarks and simulate physical bottom quarks using the relativistic heavy quark action. We will detail our new analysis procedure and give an outlook on future calculations.

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