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## Update on semileptonic B-decays with HISQ light quarks and clover b-quarks in Fermilab interpretation

*Tuesday, 30 July 2024 18:15 (1 hour)*

We compute the vector, scalar, and tensor form factors for the  $B \rightarrow \pi$ ,  $B \rightarrow K$ , and  $B_s \rightarrow K$  amplitudes, which are needed to describe semileptonic  $B$ -meson decay rates for both the charged and neutral current cases. We use the highly improved staggered quark (HISQ) action for the sea and light valence quarks. The bottom quark is described by the clover action in the Fermilab interpretation. Simulations are carried out on seven  $N_f = 2 + 1 + 1$  MILC HISQ ensembles at approximate lattice spacings from 0.15 fm down to 0.057 fm with both physical and unphysical sea-quark masses. We present blinded preliminary results for the form factors in the continuum limit.

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