

# Semileptonic $B \rightarrow \pi \ell \nu$ decays

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The desire for additional determinations of the CKM matrix element  $V_{ub}$  and a long-standing  $2\text{--}3\sigma$  discrepancy between results from inclusive  $B \rightarrow X_u$  and exclusive  $B \rightarrow \pi$  processes motivate the study of  $B \rightarrow \pi$  semileptonic form factors on the lattice. The status of our preliminary  $B \rightarrow \pi \ell \nu$  results will be discussed by highlighting updates to our analysis. The analysis is carried out on a subset of the RBC/UKQCD 2+1f Iwasaki gauge action ensembles, with  $b$  quarks simulated using the Columbia formulation of the relativistic heavy quark action, and the light valence-quarks simulated with domain wall fermions. The final results of this project will provide updates to the 2015 RBC/UKQCD  $B \rightarrow \pi \ell \nu$  result.

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