

Mixed-Action Effects on HISQ Ensembles

We are now generating and validating using eleven 2+1+1-flavor gauge ensembles at four lattice spacings $a \in [0.04, 0.12]$ fm and several values of the strange quark mass tuned to near the physical value HISQ configurations that, relative to Clover ensembles, require fewer computational resources while exhibiting smaller discretization errors, facilitating chiral and continuum extrapolations. We also compute mixed-action effects for the unsmeared, Stout-smeared and HYP-smeared clover fermion on the HISQ action.

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