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The QED contributions to the short and intermediate windows of the hadronic vacuum polarization contribution to the muon g–2

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To compare the results from different calculations of the leading-order HVP contribution to the muon's anomalous magnetic moment, either using lattice QCD or phenomenological input, it has been found useful to use window observables. We report blinded results on the connected QED contributions to the short distance and intermediate windows. The calculations use the highly-improved staggered quark (HISQ) formulation. The gauge configurations are generated with four flavors of HISQ sea quarks with physical sea-quark masses. The analysis includes ensembles with three lattice spacings: 0.15, 0.12 and 0.09 fm. We also report results on the QED corrections to meson masses and discuss the scheme dependence of comparing the results from QCD+QED and QCD simulations.

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