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Type: **Talk**

Toward sub-percent precision in muon $g - 2$: Isospin breaking corrections to HVP

Monday 3 November 2025 17:20 (20 minutes)

An ongoing project of the Fermilab Lattice, HPQCD, and MILC collaborations is the precision calculation of the hadronic vacuum polarization (HVP) contribution to the anomalous magnetic moment of the muon. In this talk, we present the isospin breaking corrections to the connected and disconnected contributions to HVP with a focus on the dominant, long-distance contributions to these correction. Results for both strong isospin breaking and QED are discussed. All calculations are performed on $N_f = 2 + 1 + 1$ highly-improved staggered-quark (HISQ) ensembles with physical pion masses. A companion talk will discuss the status of the isospin-symmetric contributions.

Parallel Session (for talks only)

Quark and lepton flavor physics

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