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Leading order hadronic vacuum polarization contribution to the muon anomalous magnetic moment from the FNAL/HPQCD/MILC collaborations

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The Muon $g-2$ experiment at Fermilab is set to provide the most precise measurement of the anomalous magnetic moment of the muon. There is currently a 3+ σ tension between the experimental value and Standard Model theory, making this a promising way to look for evidence of beyond the standard model physics. The hadronic vacuum polarization (HVP) contribution to muon $g-2$ is the largest source of theoretical error. This talk will describe latest results for the leading order HVP contribution based on lattice QCD from the Fermilab Lattice, HPQCD, and MILC Collaborations.

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