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The hadronic vacuum polarization function with $O(a)$ -improved Wilson fermions - an update

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We present an update of the analysis of the leading order hadronic contribution to the muon $g-2$ using a high statistics evaluation of the vacuum polarization function (VPF) with $O(a)$ -improved $N_f = 2$ Wilson fermions. Partially twisted boundary conditions are used to increase the number of available Q^2 points. We employ an extended frequentist's method to study the systematic errors arising from the Q^2 dependence of the VPF as well as various ansätze for the continuum and chiral extrapolation. We present preliminary results for a_μ^{HLO} including the valence contributions of u,d,s and c quarks.

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