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## Hadronic vacuum polarization from twisted mass lattice QCD

The hadronic vacuum polarization (hvp) function  $\Pi$  is the basis quantity for high-precision lattice calculations of the hvp contribution to the muon anomalous magnetic moment,  $a_\mu^{\text{lo-hvp}}$ .

Recently, tensions have emerged between lattice QCD based determinations of intermediate time-distance hvp ("window") contributions to  $a_\mu^{\text{lo-hvp}}$  and their counterparts based on  $e^+e^- \rightarrow \text{hadrons}$   $R$ -ratio experimental data.

The investigation of the 4-momentum-dependent polarization function itself provides an alternative approach to zero in on potential momentum regions where such discrepancies originate. We present results for our determination of  $\Pi(Q^2)$  from twisted mass lattice QCD at physical quark masses, towards a  $Q^2$ -specific comparison with dispersive results.

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