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Hadronic vacuum polarization contribution to the anomalous magnetic moments of all leptons from first principles

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We present the latest lattice QCD results for
the leading-order contributions of the hadron vacuum polarization (LO-HVP)
to the muon's anomalous magnetic moment. Calculations are carried out
with the u, d, s and c quarks at the physical quark masses
in volumes of linear extent larger than 6 fm,
and at six values of the lattice spacing,
allowing for a fully controlled continuum extrapolation.
All connected and disconnected contributions are calculated.
Furthermore, we provides the LO-HVP contributions to the electron's and
tau-lepton's anomalous magnetic moments.
We discuss possible uncertainties which may come from finite-volume
and isospin-breaking effects, and compare the results of the full HVP
with phenomenological estimates.

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