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Muon $g{-}2$ and $\Delta\alpha$ connection

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The Muon g-2 experiment at Fermilab has recently confirmed Brookhaven's earlier measurement of the muon anomalous magnetic moment a_{μ} . This new result increases the discrepancy Δa_{μ} with the Standard Model (SM) prediction and strengthens its "new physics" interpretation as well as the quest for its underlying origin. Following the presentations of the new experimental result and the SM prediction of the Muon g-2 at this conference, I will focus on some of the latest developments and discuss the connection of the discrepancy Δa_{μ} to precision electroweak predictions via their common dependence on hadronic vacuum polarization effects. This is particularly relevant for the ongoing comparison between results for hadronic vacuum polarization effect as calculated from hadronic cross section data and from lattice QCD.

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Collaboration / Activity

Muon g-2 Experiment/Theory

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