

03 MUON $g-2$

New results on the hadronic vacuum polarization contribution to the muon $g-2$

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摘要 Results on the lowest-order hadronic vacuum polarization contribution to the muon magnetic anomaly are presented. They are based on the latest published experimental data used as input to the dispersion integral. Thus recent results on $\tau \rightarrow \nu_{\tau} \pi \pi^0$ decays from Belle and on e^+e^- annihilation to $\pi^+\pi^-$ from BABAR and KLOE are included. The new data, together with improved isospin-breaking corrections for τ decays, result into a much better consistency among the different results. A discrepancy between the Standard Model prediction and the direct $g-2$ measurement is found at the level of 3σ .

关键词 [muon magnetic moment, vacuum polarization, electron-positron annihilation, tau decays, \$g-2\$](#)

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