

Measuring hadronic corrections to the muon $g-2$ at BESIII

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The recent Fermilab result has confirmed the long standing discrepancy between the direct measurement and the Standard Model (SM) prediction of the anomalous magnetic moment of the muon $a_\mu=(g_\mu-2)/2$. The possibility to improve the SM prediction using data-driven approaches has motivated the BESIII collaboration to embark on a dedicated experimental program. The high statistics data samples collected with the BESIII experiment in e^+e^- collisions in the tau-charm region are analyzed exploiting the initial state radiation technique in order to measure hadronic cross sections needed in the dispersive analysis of the hadronic vacuum polarization contribution to a_μ . The same data enable investigations of two-photon collisions. These allow the determination of the momentum dependence of transition form factors of light mesons in the relevant kinematic region, which dominate the hadronic Light-by-Light contribution to a_μ . The current status and ongoing investigations will be discussed.

What is your topic?

Anomalous Magnetic Moment of the muon

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