Hadronic Contributions to New Physics Searches



Contribution ID: 35

Type: not specified

Dispersive approach to hadronic LbL contribution in muon g-2

Thursday 29 September 2016 11:15 (35 minutes)

Summary

I shall present a general dispersive formalism for evaluating the hadronic light-by-light (LbL) scattering contribution

to the anomalous magnetic moment of the muon. In the suggested approach, this correction is related to the imaginary part of the muon's electromagnetic vertex function. The latter may be directly related to measurable hadronic processes

by means of unitarity and analyticity. As a test we apply the introduced formalism to the case of meson pole exchanges and find

agreement with the direct two-loop calculation.

Presenter: VANDERHAEGHEN, Marc

Session Classification: Muon g-2