FAKT Workshop 2022: Particle Physics Retreat



Contribution ID: 11

Type: not specified

Hadronic light-by-light scattering and the muon g-2

Recently the Fermilab g-2 experiment has confirmed the long standing discrepancy between experimental measurement and Standard Model prediction of the muon's anomalous magnetic moment. This makes it timely to improve also the Standard Model calculation both in precision and robustness. In this talk, I will review recent progress in this direction with particular emphasis on the dispersive evaluation of hadronic light-by-light scattering. I will also explain how this low-energy description can be connected with constraints from perturbative QCD and the operator product expansion to extend the prediction to all energy regimes relevant to g-2.

Authors: Mr LUEDTKE, Jan (University of Vienna); PROCURA, Massimiliano (University of Vienna (AT))

Presenter: Mr LUEDTKE, Jan (University of Vienna)