

## Hadronic light-by-light contribution to the muon magnetic moment

After the publication of the new measurement of the muon  $g - 2$  by the Fermilab experiment, a tension of about 4 sigma is observed with the Standard Model estimate published by the *Muon  $g-2$  theory initiative*. The theory error is completely dominated by hadronic uncertainties, namely the hadronic vacuum polarization (HVP) and the hadronic light-by-light (HLbL) contributions and the published SM value does not include the most recent lattice calculations.

In this talk, I will present a recent lattice QCD calculation of the HLbL contribution. I will discuss the main challenges of such calculations and compare the current status in view of the the future experimental precision expected in the next few years at Fermilab.

**Primary author:** Dr ANTOINE, Gerardin (CPT)

**Presenter:** Dr ANTOINE, Gerardin (CPT)

**Session Classification:** Flavor

**Track Classification:** Flavor