

Rebhan

Title: "Holographic QCD and the anomalous magnetic moment of the muon"

Abstract: I discuss the recent progress made in using holographic QCD to study hadronic contributions to the anomalous magnetic moment of the muon, in particular the hadronic light-by-light scattering contribution, where the short-distance constraints associated with the axial anomaly are notoriously difficult to satisfy in hadronic models. This requires the summation of an infinite tower of axial vector mesons, which is naturally present in holographic QCD models, and indeed takes care of the longitudinal short-distance constraint due to Melnikov and Vainshtein. Numerically the results of simple hard-wall holographic QCD models point to larger contributions from axial vector mesons than assumed previously, while the predicted contributions from pseudo Goldstone bosons agree nicely with data-driven approaches