

Pseudoscalar-Photon Transition Form Factors from Twisted Mass Lattice QCD

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We report on our computation of the pseudoscalar-photon transition form factors from twisted mass lattice QCD for three pseudoscalar states, i.e. the neutral pion and the eta and eta' mesons, to determine the corresponding light pseudoscalar pole contributions in the dispersive analysis of hadronic light by light scattering in the muon $g-2$.

The neutral pion transition form factor is computed directly at the physical point.

While the eta and eta' transition form factors are more numerically challenging than the one for the neutral pion, we present first results for the eta and eta' 3-point amplitude and explore methods for extracting the transition form factors.

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