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Pion-mass dependence of $\gamma^{(*)}\pi \to \pi\pi$ and $\pi\pi \to \pi\pi$

Recent years have witnessed drastic progress in the computation of hadronic scattering via lattice QCD. Nevertheless, computations are often performed at unphysically high pion masses. Here, we extrapolate lattice results of the anomalous $\gamma^{(*)}\pi \rightarrow \pi\pi$ scattering to the physical pion mass via a dispersive framework, extract the associated chiral anomaly and the radiative coupling of the ρ -resonance to $\pi\gamma$. In addition, we confront unitarized 1- and 2-loop ChPT with $\pi\pi \rightarrow \pi\pi$ data, determine the characteristics of the ρ and assess the chiral convergence. The talk is based on arXiv:2110.11372 and arXiv:2009.04479.

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