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Meson-meson scattering in $N_{\rm f}=4~{\rm QCD}$

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In this talk, we present preliminary results on $\pi\pi$ and $\rho\rho$ coupled-channel scattering with 4 degenerate light quark flavors. We focus on different scattering channels, two of which are attractive and possess the same quantum numbers as the two $X_{0,1}(2900)$ tetraquark candidates recently discovered at LHCb. Using Luscher's formalism, we investigate these resonances in the scattering amplitude. We will also discuss some ongoing study on the large $N_{\rm c}$ scaling of these scattering processes, which may shed light on the nature of such exotic states.

Topical area

Hadronic and Nuclear Spectrum and Interactions

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