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On exotic hadron spectroscopy and unitarized EFTs

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In recent years, a plethora of exotic states have been observed in the experimental facilities. Some of these states, of tetraquark and pentaquark types, were predicted previously in approaches based on Effective Field Theories, unitarity of the S-matrix, and chiral and heavy quark spin symmetries. In this talk, I will review some of the predictions made in the local hidden gauge approach on exotic states. One way to test the predictions of these approaches is to compare with results from LQCD simulations, which are done for unphysical pion masses. This is also useful for understanding the predictions from LQCD simulations from an experimental point of view. Thus, I will talk about how the properties of exotics can be extracted from the analysis of LQCD simulations by studying the quark mass dependence of exotic resonances, in particular, of the $D_{s0}(2317)$ and $D_{s1}(2460)$ resonances. Scattering parameters and properties of these resonances are extracted from a global analysis of LQCD data.

Parallel Session

Hadron Spectroscopy

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