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The exotic frontiers of lattice QCD RAUL BRICENO, Jefferson Lab

Lattice QCD has proven to be a remarkably powerful tool for studying masses and electroweak properties of low-lying hadronic states. Extending the power of this tool to study few-body hadronic observables would impact our understanding of phenomena ranging from the inner structure of exotic mesons to the rare processes seen in particle accelerators that might shed light on possible extensions to the present paradigm of nuclear/particle physics. In this talk, I will first review the challenges associated with the studies of such systems via Lattice QCD. I will discuss recent progress towards being able to study elastic/inelastic scattering cross sections as well elastic/transition form factors for few-body systems. Finally, I will outline outstanding problems and discuss the future of the field.