Abstract Submitted
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Bridging phenomenology lattice QCD in the 3-body sector[1] MAXIM MAI, MICHAEL DORING, The George Washington University — The interacting three-particle states are populated via an interacting two-particle subsystem (resonant or non-resonant), and a spectator. Using this formulation, we derive the relativistic isobar-spectator amplitude such that the three-body Unitarity is ensured exactly (Eur.Phys.J. A53 (2017) no.9, 177). Unitarity constrains the imaginary parts of such an amplitude in infinite volume. In the finite volume this determines the leading power-law finite-volume effects allowing for a derivation of a highly desired 3-body quantization condition. Short derivation of the latter in the present formalism (Eur.Phys.J. A53 (2017) no.12, 240) as well as a subsequent application to the physical system for which Lattice results exist (Phys.Rev.Lett. 122 (2019) no.6, 062503) will be presented in this talk.

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