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Parameters of the a1(1260) resonance from lattice QCD

Thursday, 29 July 2021 14:00 (15 minutes)

We present the first determination of the universal parameters of the a1(1260) from QCD. This consists of three steps presented in the talk:
(1) Lattice QCD calculation including three-meson operators; (2) Generalization of three-body quantization condition including sub-systems with spin and coupled channels; (3) Analytic continuation of the infinite-volume amplitude and determination of the pole positions and branching ratios. Some comparison to phenomenology will be discussed as well.

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