

Extraction of hadron interactions from lattice QCD

Monday 9 August 2010 11:00 (50 minutes)

A few years ago, we proposed a method to extract potentials from the Nambu-Bethe-Salpeter wave function and indeed obtained the nucleon-nucleon potential in lattice QCD. In this talk, as an extension of this method, we propose a new method to extract information of hadron interactions in lattice QCD above the inelastic threshold. After theoretical considerations of this method, we present results from a toy model to show a main idea of this method as well as from lattice QCD to extract hyperon-hyperon potentials. We briefly discuss other applications.

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