

812nd ASRC Seminar

Date: 4月15日(金) 10:00~12:00

Location: Zoomによるオンライン開催

Speaker: Jia-Jun Wu 氏
(中国科学院大学 (UCAS))

Title: The Combination of Lattice data,
Experimental data, and Effective Model
in the HEFT

Abstract:

The Hamiltonian effective field theory (HEFT) is a new systematic method to study the hadrons by combining with experimental data and Lattice data. In the finite volume, the eigenstates of the Hamiltonian matrix discretized in momentum space can be related to the energy eigenstates observed in Lattice simulations, while in the infinite-volume, various experimental observables can also be calculated from the interacting Hamiltonian. With the Hamiltonian approach, the effective model including the interactions between various channels will be applied. From the eigenvectors of the Hamiltonian matrix one can learn the composition of the lattice-QCD eigenstates. Then the nature of the resonances is investigated in this framework. In this talk, we will introduce recent breakthroughs in our understanding of the structure of the $N^*(1535)$, $N^*(1440)$, $\Lambda^*(1405)$ and the positive parity family D_s states using this method.

<Contact>

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