

Strangeness is the key: from $\bar{K}N$ to $D\bar{D}K$

Lisheng Geng

Beihang University.

Content

We show that the $\bar{K}N$ coupled-channel interaction can be described in chiral perturbation theory. Such an interaction leads naturally to the existence of the two poles of $\Lambda(1405)$, which has received increasing support from lattice QCD and experiments. In addition, we demonstrate that the same type of interaction gives rise to the $Ds_0^*(2317)$ and its associated three-body $D\bar{D}K$ states.

Reference

- [1] *Phys.Rev.Lett.* 130 (2023) 071902
- [2] *Phys.Rept.* 1108 (2025) 1-108

Field of Research: Interactions of mesons and baryons with strangeness /Heavy flavor systems

Experiment / Theory: Theory

Contribution Type: Invited talk