

Kaonic deuterium from realistic antikaon-nucleon interaction

Thursday, 7 June 2018 17:10 (0:25)

Collaboration

Abstract content

The antikaon plays an interesting role in low-energy QCD, reflecting the spontaneous and explicit breaking of chiral SU(3) symmetry. In this talk, we present the current status of theoretical studies of the kaonic deuterium from the viewpoint of few-body calculations. After the introduction of recent developments of the realistic antikaon-nucleon interactions, we show the results of accurate three-body calculations for the spectrum of kaonic deuterium using a realistic antikaon-nucleon interaction. Examining the sensitivity of the $I = 1$ component of the two-body interaction, we discuss the future perspective in relation with the forthcoming experiments of J-PARC E57 and SIDDHARTA-2.

Primary author(s) : HYODO, Tetsuo (Yukawa Institute for Theoretical Physics)

Presenter(s) : HYODO, Tetsuo (Yukawa Institute for Theoretical Physics)

Session Classification : Parallel Session B2