

Studying the interactions between hyperons and nucleons from Lattice QCD

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The instability of hyperons against the weak interaction hinders the experimental extraction of baryon-baryon low-energy observables in the strange sector. In this energy regime, a reliable numerical procedure to obtain information of nuclear physics quantities is lattice QCD, a high-demanding numerical approach to solve the complex dynamics of strongly-interacting systems directly from the degrees of freedom of the Standard Model, quarks and gluons. In this talk, I will present the results obtained by the NPLQCD collaboration, constraining the coefficients from the relevant effective field theories of two non-relativistic baryons, as well as the results from a variational calculation using a large interpolating operator set.

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