

## Baryonic EFT for Light Hypernuclei

Wednesday 29 June 2022 09:45 (25 minutes)

Light hypernuclei containing one or two  $\Lambda$  baryons is the subject of an ongoing experimental campaign aiming to study the spectrum of these systems, as well as the 2 and 3-body interaction between  $\Lambda$  hyperons and nucleons.

In this presentation we review the theoretical study of these systems within the framework of Baryonic Effective Field Theory (BEFT). Constrained to reproduce the available low energy data, BEFT solves the long-standing overbinding problem of the  $\Lambda$ - $^5\text{He}$  hypernucleus, and predicts the existence of bound double-lambda Hypernuclei still under debate.

Its application to study the continuum spectrum of hypernuclear trios, reveals the existence of a virtual state in the  $\Lambda np$   $J^\pi = \frac{3}{2}^+$  channel, leading to cross-section enhancement near threshold. For the  $\Lambda nn$   $J^\pi = \frac{1}{2}^+$  channel it predicts a resonance state, depending, however, on the value of the  $\Lambda$ -nucleon scattering length. Recently, BEFT was also applied to study the  $^4_\Lambda\text{H}$ - $^4_\Lambda\text{He}$  charge symmetry breaking, yielding an estimate for the  $\Lambda - \Sigma^0$  admixture amplitude  $A_{I=1} \approx 1.5\%$  in agreement with the value deduced by Dalitz and von-Hippel from the baryon octet mass.

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**Session Classification:** 3; Wed-I