ROCKSTAR: Towards a ROadmap of the Crucial measurements of Key observables in Strangeness reactions for neutron sTARs equation of state

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(Hyper)nuclear Pionless Effective Field Theory at next-to-leading order: status and perspectives

Thursday 12 October 2023 12:00 (30 minutes)

Pionless Effective Field Theory at Leading order proved to be valuable approach in a study of different properties of s-shell Λ - and $\Lambda\Lambda$ - hypernuclei. Recently, it was demonstrated that the inclusion of next-to-leading order (NLO) corrections substantially improve predictive power of this theory in a theoretical study of fewbody $A \leq 5$ nuclear scattering. In my talk I will review the corresponding nuclear results and show the status of preliminary hypernuclear calculations as well as its future perspectives.

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