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Equation of state of lambda-neutron matter from Quantum Monte Carlo calculations

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I will review the recent progress we have reached in the ongoing study of strange matter using phenomenological potentials and Quantum Monte Carlo calculations. In particular I will focus on the discussion of the possibility of effectively constraining the interaction (in particular in the three-body sector) making use of the available experimental results. Some of our recent calculations, for instance, show that the hyperon-nucleon-nucleon interaction in the nucleon isospin triplet channel is very weakly constrained by the lambda separation energy in light and symmetric hypernuclei, pointing out the need of increasing the availability of experimental data for medium-mass asymmetric hypernuclei.

Primary author: PEDERIVA, Francesco (TIFP)

Co-authors: Dr LOVATO, Alessandro (Theoretical Division, Argonne National Laboratory, Argonne, IL (USA)); Dr LONARDONI, Diego (Theoretical Division, Argonne National Laboratory, Argonne, IL (USA)); Dr GANDOLFI, Stefano (Theoretical Division, Los Alamos National Laboratory, Los Alamos, NM (USA))

Presenter: PEDERIVA, Francesco (TIFP)