

APR20-2020-030080

Abstract for an Invited Paper  
for the APR20 Meeting of  
the American Physical Society

### **From Light-Nuclei to Neutron Matter Within Chiral Dynamics**

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A major goal of nuclear theory is to explain the wealth of data and peculiarities exhibited by nuclear systems in a fully microscopic approach. In such an approach, which we refer to as the basic model of nuclear theory, the nucleons interact with each other via many-body (primarily, two- and three-body) effective interactions, and with external electroweak probes via effective currents describing the coupling of these probes to individual nucleons and many-body clusters of them. These effective interactions and currents are the main inputs to ab-initio methods that are aimed at solving the many-body Schrodinger equation associated with the nuclear system under consideration. In this talk, I will review recent progress in Quantum Monte Carlo calculations of low-lying spectra and electroweak properties of light nuclei as well as nucleonic matter equation of state. Emphasis will be on calculations based on chiral effective field theory approach.