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Nuclear Lattice EFT Simulation with Woods-Saxon Potential

Sunday, 2 March 2025 09:45 (45 minutes)

Experimental exploration of neutron dripline is very challenging, and neon is the heaviest nucleus measured neutron dripline experimentally. Prediction of dripline heavier nuclei than neon is currently depends on theoretical approaches. However, there exist strong model-dependence in the prediction of the dripline in theoretical approach. Nuclear Lattice Effective Field Theory is one of the ab initio approach to explore the quantum many-body systems. In this talk, I will give a talk about the nuclear properties of Oxygen isotopes under the Woods-Saxon potential which is semi ab initio near the neutron dripline using lattice Monte Carlo simulations.

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