

Effective-Field-Theory Extrapolations of Lattice-QCD Predictions for Light Nuclei

Friday, 1 June 2018 15:00 (20 minutes)

I will present work which utilizes few-nucleon observables, predicted with the lattice technique from quantum chromodynamics, to calibrate an effective interaction theory for nucleons (the pionless effective field theory) in order to assess the sensitivity of larger nuclei, their ground-state and scattering properties and electromagnetic responses, with respect to the unphysical changes in the lattice formulation of QCD —the large quark/pion masses, in particular. The presentation will include our latest investigations on multi-neutron cluster and the mass gap as represented by the five-nucleon system.

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