

# The nucleon-nucleon interaction and light nuclei from lattice QCD

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At the most basic level, nuclei, with all their inherent complexity, are an emergent phenomenon of the Standard Model. In theory, from the fundamental interactions of quarks and gluons and the electroweak sector, the entire spectrum of nuclei and their properties and interactions arises. Demonstrating that this is the case is a formidable task because of the non-perturbative nature of the strong interactions. To address this challenge in an *ab initio* way requires the use of lattice QCD, and over the last few years a number of groups have begun to investigate nuclear physics using lattice QCD. In this talk, I will summarise recent studies of the baryon-baryon interactions and the spectrum of light nuclei, and outline the prospects for future progress in this arena.

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