

APR20-2020-020035

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

### **Nuclei from lattice QCD**

MICHAEL WAGMAN, Fermilab

Lattice QCD is being used to quantitatively understand how the strong nuclear force emerges from the underlying theory of QCD and make progress towards reliably predicting the properties of nuclei directly from the quark and gluon interactions of QCD. This talk will review recent lattice QCD studies of the quark and gluon structure of nuclei as well as nuclear matrix elements describing electroweak reactions. The outlook will be discussed for lattice QCD calculations of nuclei with nearly physical quark masses and applications to electron- and neutrino-nucleus scattering and new physics searches with nuclear targets.