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Status of Lattice QCD calculations of one and two-nucleon matrix elements
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Lattice QCD calculations of basic hadronic quantities are now often performed with systematic control over the physical pion mass, continuum and infinite volume limits. This progress signals a new era in which lattice QCD will be used to compute basic properties of hadrons, nucleons and light nuclei directly from the Standard Model (SM). In particular, we will be able to use lattice QCD, combined with Effective Field Theory, to make quantitative statements about the interaction of SM matter and potential beyond the SM physics ranging from direct dark matter detection to permanent electric dipole moments. I will briefly review the status and challenges of lattice QCD calculations of select one- and two-nucleon matrix elements. These calculations are significantly more challenging than the basic quantities computed with all systematics controlled, but substantial progress is being made.