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Lattice QCD input for neutrino-nucleus scattering

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Simulations of lattice QCD have emerged as the most reliable tool for making predictions of the low energy properties of hadrons and of quarks and gluons composing them with control over all systematic uncertainties. In this review, I will cover the status of the calculations of quantities that are needed in the analysis of neutrinos off nuclear targets. These include the axial charge and the form factors. A discussion of systematics—removing excited state contributions and obtaining results at the physical point will be included. Looking ahead, I will conclude with prospects of calculating transition matrix elements.

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