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Axial-Current Matrix Elements in Light Nuclei from Lattice QCD (15' + 3')

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I will present results of recent lattice QCD calculations of axial-current matrix elements in light nuclei performed by the NPLQCD collaboration. Precision calculations of these matrix elements, and the subsequent extraction of multi-nucleon axial current operators, are essential in refining theoretical predictions of neutrino-nucleus cross sections and double-beta decay rates of nuclei. In addition, they are expected to shed light on the phenomenological quenching of gA required in nuclear many-body calculations.

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