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Abstract for an Invited Paper for the DNP20 Meeting of the American Physical Society

Quantum Monte Carlo calculations of lepton-nucleus interactions

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In this talk, I will report on recent progress in microscopic calculations of lepton-nucleus interactions and their impact on ongoing experimental efforts in Nuclear Physics, Fundamental Symmetries and Neutrino Physics. In particular, I will present calculations of beta decay and neutrinoless double beta decay matrix elements in light nuclei. In addition, I will discuss a novel computational method developed to study scattering of electrons and neutrinos from nuclei and their relevance to long-base neutrino oscillation experiments and JLab experimental programs.