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Abstract for an Invited Paper
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Neutrino-nucleus interaction: an ab-initio perspective

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Understanding of the structure and of the electroweak interactions of atomic nuclei in terms of their individual constituents is an intriguing nuclear many-body problem. I will present how the Quantum Monte Carlo community is pursuing a consistent description of the structure of atomic nuclei and their interaction with electroweak probes, providing a reliable estimate of the theoretical uncertainty of the calculation. I will also present benchmark calculations between Quantum Monte Carlo and the spectral function approach. Testing the factorization ansatz is of crucial importance, as the latter allows to combine a fully relativistic description of the interaction vertex with an accurate treatment of nuclear dynamics.