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## Quantum Monte Carlo calculations of electromagnetic moments and transitions in $A \leq 10$ nuclei with two-body $\chi$ EFT currents

*Thursday, 2 July 2015 17:35 (15 minutes)*

In this talk, I will present a number of Quantum Monte Carlo calculations of electromagnetic observables in light nuclei ( $A \leq 10$ ) including electromagnetic moments, M1 and E2 transitions. These calculations use wave functions generated from nuclear Hamiltonians with two- and three-nucleon realistic potentials. In addition to impulse approximation terms, nuclear electromagnetic currents account for two-body operators derived from chiral effective field theory. These studies show that many-body contributions in both nuclear Hamiltonians and transition currents are crucial to reach agreement with the experimental data.

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