Quantum Monte Carlo calculations of electron scattering from A=3 and 4 nuclei LORENZO ANDREOLI, SAORI PASTORE, Washington University, St. Louis, STEFANO GANDOLFI, JOSEPH CARLSON, Los Alamos National Laboratory — In this talk, I will present ab initio Quantum Monte Carlo calculations for the scattering of electrons off $A = 3, 4$ nuclei, in the quasielastic regime. Adopting the Argonne v_{18} realistic two-nucleon interaction, we use a propagation in imaginary-time to evaluate the short-time response of nuclei. This approach consistently accounts for two-body physics, both in the nucleon-nucleon interaction and the electromagnetic currents. It is also used to study scattering channels involving nucleons in back-to-back kinematics, for nn, pp and np pairs, currently tested at, e.g., JLab. I will present results for both longitudinal and transverse response functions as well as response densities.

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Date submitted: 09 Jan 2020   Electronic form version 1.4