

# Electromagnetic two-nucleon knockout: a tool to study NN-correlations?

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Since a long time electromagnetic two-nucleon knockout reactions have been devised as a preferential tool to investigate two-body correlations in nuclei. Intuitively, the probability that a real or virtual photon is absorbed by a pair of nucleons should be a direct measurement of the correlations between the two nucleons. However, competing mechanisms like meson-exchange currents and final state interactions may lead to a nonvanishing cross section even in the absence of correlations so that in consequence a profound understanding of all relevant reaction mechanisms is mandatory to extract informations about NN-correlations.

In this talk, recent advances in this field are reviewed, e.g. the discussion of the role of center-of-mass effects in connection with the problem of the lack of orthogonality between initial bound states and final scattering states obtained by the use of an energy-dependent optical-model potential. Furthermore, the sensitivity of the cross sections for proton-proton and proton-neutron knockout off  $^{16}\text{O}$  to different types of correlations and to their treatment in the nuclear wave functions is discussed.