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Kinematical effects in electroproduction of hypernuclei

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Electroproduction of hypernuclei is an object of current interest. Precise and reliable predictions of the cross sections in hypernucleus electroproduction are important both in planning experiments and data analysis. We will discuss some uncertainties in description of the reaction mechanism based on impulse approximation, particularly, we will show effects of proton motion in the target nucleus (Fermi motion effects) and other kinematical effects usually used in current calculations. Including the Fermi motion allows us to go beyond the "frozen proton approximation" and in this way improve our previous DWIA calculations assuming an optimum value of the target-proton momentum.
To this end we have also developed a general CGNL-like formalism for the elementary amplitude which allows to evaluate the two-component form of the amplitude in a general reference frame. The effects of various approaches will be demonstrated on the angular and energy dependent cross sections in hypernucleus electroproduction.

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