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Towards a combined analysis of inclusive/exclusive electroproduction

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The CLAS experiments have achieved major advances in the study of the N*
region of the electroproduction spectrum, and the ata on electrocouplings of the many baryon resonances in the mass range up to 1.8 GeV showed consistency between the different meson channels. We present our theoretical studies of structure functions in view of the CLAS12 experiments planned in the near future, which are to study electron scattering observables at a wide Q2 range and with high precision in x.

We model the resonant contributions to inclusive electron scattering, using the electrocoupling data as input. Our results are thus not fitted to the inclusive data: instead, we use the reliable extraction of the separate resonance contributions from exclusive reactions. The combination of the resonance model with a non-resonant background based on Regge models will enable, for the first time, a combined description of the low and high-x regions of
the proton structure functions. This is useful for future endeavours on understanding the transition between low and high x regions, strongly related to tests on quark-hadron duality.

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