

Abstract Submitted
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Generalized Parton Distributions in Nuclei SIMONETTA LIUTI,
University of Virginia — We will present an analysis of the structure of generalized parton distributions in spin 0 nuclei within a microscopic approach for nuclear dynamics. GPDs can be used on one side as tools to unravel the deep inelastic transverse structure of nuclei in terms of both transverse spatial and transverse momentum degrees of freedom. On the other hand, one can obtain information on GPDs themselves by observing how they become modified in the nuclear environment. Our study encompasses several nuclear observables: from Color Transparency, to nucleon overlap probabilities, to Mellin moments in nuclei, with particular emphasis on the behavior with the four-momentum transfer t of the total momentum carried by quarks in a nucleus. The latter provides an important element for the evaluation of nuclear hadronization phenomena which are vital for interpreting current and future data at RHIC, HERMES and Jefferson Lab.

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