Contribution ID: **168**   Type: **Parallel**

Generalized Parton Distributions of the Deuteron in a Covariant Framework

Saturday, 2 June 2018 17:10 (30 minutes)

Generalized parton distributions (GPDs) of the deuteron have been calculated. The results of these calculations and the formalism used will be presented. General properties of spin-1 GPDs, including polynomiality sum rules, will be discussed. It will be shown that these expected properties are observed in a convolution formalism if nuclear structure is calculated in a Lorentz-covariant manner. A four-Fermi contact interaction based on the NJL model is used to construct a covariant deuteron wave function, which is in turn used to calculate GPDs, gravitational form factors, and transverse (impact parameter dependent) parton densities of the deuteron.

E-mail

afreese@anl.gov

Funding source

Primary authors: Dr FREESE, Adam (Argonne National Laboratory);   Dr CLOET, Ian (Argonne National Laboratory)

Presenter: Dr FREESE, Adam (Argonne National Laboratory)

Session Classification: Parton and Gluon Distributions in Nucleons and Nuclei

Track Classification: PGDNN