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Title:	Momentum transfer dependence of generalized parton distributions
Authors:	Sharma, Neetika (/jspui/browse?type=author&value=Sharma%2C+Neetika)
Keywords:	Parametrization Nucleon Momentum dependence Parton
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Abstract:	We revisit the model for parametrization of the momentum dependence of nucleon generalized parton distributions in the light of recent MRST measurements of parton distribution functions (A.D. Martin et al., Eur. Phys. J. C 63, 189 (2009)). Our parametrization method with a minimum set of free parameters give a sufficiently good description of data for Dirac and Pauli electromagnetic form factors of proton and neutron at small and intermediate values of momentum transfer. We also calculate the GPDs for up- and down-quarks by decomposing the electromagnetic form factors for the nucleon using the charge and isospin symmetry and also study the evolution of GPDs to a higher scale. We further investigate the transverse charge densities for both the unpolarized and transversely polarized nucleon and compare our results with Kelly's distribution.
URI:	https://link.springer.com/article/10.1140/epja/i2016-16338-0 (https://link.springer.com/article/10.1140/epja/i2016-16338-0) http://hdl.handle.net/123456789/2418 (http://hdl.handle.net/123456789/2418)
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