

Measurement of exclusive J/ψ photoproduction with the CLAS12 experiment: unpolarized cross section and perspectives for polarization observables

The photo-production of vector mesons off the nucleon has long been established as an important tool to access the gluon content of the nucleon. In particular, the photo-production of J/ψ near the threshold energy has been related to the Gluons Gravitational Form Factors of the nucleon. However, the validity of this interpretation must be tested and additional contributions such as open charm loop diagrams or possible pentaquarks have to be fully understood. In this talk, I will present results on the unpolarized cross-section of the near-threshold photoproduction of J/ψ , using data taken by the CLAS12 detector at Jefferson Lab, on proton and deuterium targets. Perspectives to measure beam and target polarization observables will also be discussed.

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