

Abstract:

We discuss how one can use the electro-production of heavy vector mesons (ϕ , J/ψ , Υ) near threshold to probe the spin-2 (gravitational) form factor of the proton. We will use the electro-production of heavy vector mesons far from threshold in order to determine its resummed spin-j (Pomeron) form factor. The analysis is based on the tree level Witten diagrams in AdS within the soft wall holographic QCD model. We will compare the results with the currently available near threshold data (for J/ψ photo-production) by the GlueX collaboration at JLab, and the older far from threshold electro-production data available at HERA with very good agreement.