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Measurements of the lepto-production of vector mesons have always been pivotal in the development of a theory of hadron dynamics, challenging and elucidating the paradigm of the moment and thereby guiding our understanding of it to its present status in terms of QCD. Always with an experimentalist's appreciation of the momentous theoretical achievements of more recent years with QCD in mind, first steps in yet another new look at the measurements of such electro-production from the HERA ep collider is shown to provide simple and instructive insight in terms of what is truly chromodynamic Rutherford scattering within the dimension of confinement. The nature of further analysis of presently available data and the opportunities for progress in hadron dynamics in such terms with higher statistical sensitivity are mentioned.

Summary

The lepto-production of vector mesons (VM) is a unique QCD laboratory. By means of control of three experimental measureds, Q2, VM mass squared, and 4-momentum transfer squared t, with a simple leading-order diagram, and with the judicious application of the optical theorem, it is possible to seek a consistency in respect of the size of a quark's interaction with a colour singlet hadron. The outcome of a first, very preliminary, such attempt is presented which reveals consistency with the familiar paradigm due to confinement of constituent and current quarks. and which highlights how size matters most in chromodynamic Rutherford scattering.

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