Light-Cone 2024: Hadron Physics in the EIC era



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Feasibilty study about Sullivan Process on the u-channel

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This work presents a systematic feasibility study on measuring backward deeply virtual Compton scattering (bDVCS) on the pion through Sullivan processes, within the framework of collinear QCD factorization. In this approach, pion-to-photon transition distribution amplitudes (TDAs) are used to describe the photonic structure of the pion. Using the TDA framework considering overlap of light-front wave functions, we aim to estimate the cross-section for DVCS processes and evaluate the prospects for future measurements at electronion colliders in the U.S. and China.

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