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Parity Violation DIS at High Energy BOWEN XIAO, Lawrence Berkeley Lab, JIANWEI QIU, Iowa State University, FENG YUAN, Lawrence Berkeley Lab/RBRC — Geometrical scaling is a remarkable phenomena found in HERA. In this paper, we study the small-x behavior for the parity violating deep inelastic scattering, in particular considering the neutral current and charge current contributions, through photon, Z and W bosons exchanges by using their wave functions. We find geometrical scaling not only in the case of neutral current exchange but also in the charged current case. Moreover, we show that the parity violating structure functions F_3 vanish at small-x if the valence quark contribution is negligible. In addition, the polarized structure functions are also computed in this framework.

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