

Abstract Submitted
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Contribution of Form Factors to the Pion Cloud of the Proton¹

FERAS ALDAHLAWI, KAYLA FURUKAWA, Seattle University, KARA MERFELD, University of Puget Sound — We have investigated the contribution of the pion cloud to the excess of \bar{d} over \bar{u} in the proton sea. In the pion cloud model, the number of pions produced depends on the splitting function $f_\pi(y)$, the cutoff form factor $F_{\pi N}(t)$, and the parton distribution functions of the pion. We have studied how these factors affect the pion cloud and, therefore, the excess of \bar{d} over \bar{u} . We examine the effects of Q^2 evolution. We compare our theoretical results to the HepData parton distributions provided by Durham University and to the experimental E866 data from Fermilab.

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Feras Aldahlawi
Seattle University

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