

DIS2023: XXX International Workshop on Deep-Inelastic Scattering and Related Subjects



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Type: **Parallel talk**

Light sea and valence quarks in the CJ22 global PDF analysis

Thursday, 30 March 2023 11:30 (20 minutes)

We present the new CJ22 global QCD analysis of unpolarized parton distributions. The work focuses on the light antiquark sea to incorporate constraints from recent SeaQuest and STAR electroweak boson production data. We make use of a more flexible antiquark imbalance parametrization than in the CJ15 analysis, that in turn is sensitive to mid-rapidity correlations between the \bar{d}/\bar{u} and d/u ratios in the Drell-Yan pp/pd cross section measurements. As a result, the d/u ratio is suppressed at large x compared to the CJ15 result, and extrapolates to a substantially smaller value than obtained there as $x \rightarrow 1$.

Submitted on behalf of a Collaboration?

Yes

Participate in poster competition?

No

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