

From: Stefan Schmitt sschmitt@mail.desy.de
Subject: [h1zeus-herapdf-nnlojet] Comments to the "HERAPDF2.0nnlo jets" paper
Date: 20. August 2020 at 12:32
To: h1zeus-herapdf-nnlojet@desy.de
Cc: Stefan Schmitt sschmitt@mail.desy.de



Dear authors, dear editor,

congratulations for finishing up this draft. Here are a few comments.

All the best,
Stefan

Paper structure and changes to figures/analysis

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Section 4 and 5/6 should be swapped. First we determine PDFs with fixed α_s and compare to jets data. The free- α_s fits should come after that (same order as in the summary).

As already said in the paper presentation, I would prefer very much to have figure 8 or 15 with the same α_s for both PDFs. Using different α_s blurs the message of the figure. People will possibly try to relate the uncertainty differences to the α_s choice rather than focus on the message of uncertainty improvements through the new data.

minor textual comments

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line 38: a typo "Yhis" -> "This"

line 85: maybe explain what is meant by "complete NNLO"
(something like this
... consistently including both massive and light flavoured jets...)

line 116: missing reference
... improved ... fits, confirming earlier findings [36].

line 188: perhaps explain this problem a bit more in detail?
... such that a non-vanishing charm contribution can be generated perturbatively for any scale above the M_c threshold.