Dear Editor:

Please find here the revised version of the paper, that we kindly ask you to consider for publication. All the recommendations and suggestions from the referee report were addressed.

Letter to the Referee:

We are thankful to the referee for the detailed analysis which motivate to improve the manuscript. In what follows, after quoting each part of the report, we present our comments and changes in this revised version.

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"1. CT14 and MMHT PDFs are used, but the order of these is not I believe specified. LO presumably, but this should be stated."

The Referee is right and we thank him/her for calling attention on this point. Indeed the PDF's used are in its leading-order form. We have clarified this point in the 2nd paragraph of Introduction.

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"2. Plots of PDFs without uncertainty bands are really rather meaningless. Without including the PDF uncertainty, it is difficult to say how much the PDFs plotted in Fig. 1 differ. Please include these."

We appreciate this specific point raised by the Referee. For the case of CTEQ6L, we were not able to study its uncertainty because there is no replicas to perform such procedure. For this reason we have switched the CTEQ6L analysis by the NNPDF31, where the latter has more than a hundred replicas. We follow the same replica procedure with the MMHT set. As respect of the CT14, this particular PDF does not also seem to have replicas, however since we are comparing our results with our previous ones (which was made using CT14, see Phys.Rev.D 101 (2020) 7, 074034), we decided to keep it even without an uncertainty region. Please, find in the manuscript the updates of figures 1, 3 and 4 with respect of the uncertainty bands and the remaining ones related to the change in PDF.

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"3. Down to what x value are we sensitive to in (18)? It would useful to comment on this."

We thank the Referee for raising this question. We divided the paragraph after Eq.(18) and added a new paragraph commenting this point related to the x-value.

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"4. With possible relevance to the above question. The x range in Fig. 1 goes down to extremely low x, well below the region that is actually experimentally constrained by data in the fit at these low scales. Any differences between e.g. the gluon in the various sets at x of 10^{-8}***, and indeed the actual size of any individual set is not particularly meaningful from a physical point of view, being rather driven simply by the assumed parameterisation. This should be commented on more clearly."***

Não faço idéia o que ele quer que seja comentado, mas a resposta da questão 3 meio que anula esta. De qualquer forma, nós dicutimos algo nesta linha neste paper 10.1140/epjc/s10052-019-7545-

2. Talvez vale dar uma olhada.
Victor, acho que tu podes fazer um bom chálálá aqui para dobrar o Emergno (Emerson/Magno)
PRATICAMENTE RESPONDIDO!

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"5. Related to point (2). In the actual analysis again only the central value of the PDF sets is used, but without including the PDF uncertainty in this it is hard to make firm statements about what each set prefers for the different elastic and diffractive cross sections, as is discussed in the text. This PDF uncertainty should be accounted for/propagated through in the analysis."

We have carried out the uncertainty propagation of the PDFs into the fitting analysis of the observables. The figures 1, 2 and 4 were properly updated taking into account the uncertainty regions.

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"6. I would like to see some discussion of the extent to which the pQCD prediction (18) depends on the other free parameters here, i.e. the choice of Q^2_{min}, the IR regulator etc. Are these smaller than the PDF variation?"

We added a new paragraph right after Table 1 and we addressed more comments on the points raised by the Referee.

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"7. There are a few english mistakes here and there (e.g. 'tunning' rather than 'tuning'), so perhaps another proof read is in order."

We believe that all the spelling mistakes were properly corrected. We thank the Referee for headlining these typos.

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Sincerely yours,

M. Broilo, V.P. Gonçalves and P.V.R.G. Silva.
V.P. Gonçalves (by the authors).