

Dear Pavel,

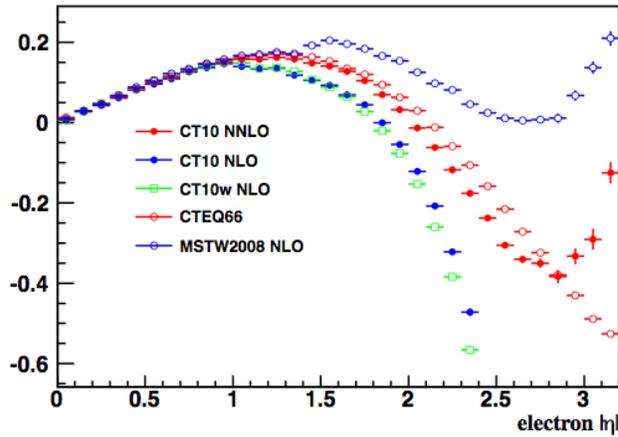
Thank you very much for the feedback. The electron charge asymmetry paper has been published in the Phys. Rev. D [PRD 91, 032007 (2015)], please check the new version of paper. For the correlation coefficient of systematic uncertainties, we found an error recently, which the elements of tables in Table VII to XI were the square roots of calculated values, but will not affect the measured asymmetry. We are working on the submission of erratum, the corrected tables can be found at [http://www-d0.fnal.gov/Run2Physics/wz/wasymmetry/Syst\\_Correlation\\_with\\_100\\_unfold.pdf](http://www-d0.fnal.gov/Run2Physics/wz/wasymmetry/Syst_Correlation_with_100_unfold.pdf)

For the CTEQ6.6 prediction uncertainty bands, we have such comparisons in the D0 internal note. And during the paper publication, we received a suggestion to use a modern PDF sets, then in the PRD paper, we used the PDF uncertainty estimated using the NNPDF2.3NLO.

The main reason we don't use CT10NNLO PDFs in the paper is that CT10NNLO includes previous D0 electron charge asymmetry results [PRL 101, 191801 (2008)]. As explained in the new paper, the 10 fb<sup>-1</sup> results are used to supersede the previous results, especially for the asymmetry in higher electron p<sub>T</sub> bins.

And we performed some PDF sets studies, by comparing the CTEQ6.6, CT10NLO, CT10NLOw, and CT10NNLO, with RESBOS generator and MC@NLO generator. Conclusions are listed below:

- 1) RESBOS + CT10NNLO prediction is inconsistent with RESBOS + other CTEQ PDF sets, also it has a turn-on curve after  $|\eta| = 2.5$ , as shown in Fig. 1.



*Fig 1: The electron charge asymmetry with kinematic cuts electron  $p_T > 25$  GeV, and neutrino  $p_T > 25$  GeV, as a function of electron  $\eta$ . The predictions are calculated using RESBOS +PHOTOS with different PDF sets.*

- 2) As shown in Fig. 2, The MC@NLO + CT10NNLO prediction is close to the CT10NLOw prediction and differs from the other predictions. Indeed MC@NLO + CT10NNLO and CT10NLOw include previous D0 electron charge asymmetry measurement and are affected by that result. However, as described in the PRD paper, the previous D0 electron charge asymmetry should not be considered anymore as it is superseded by the new measurement.

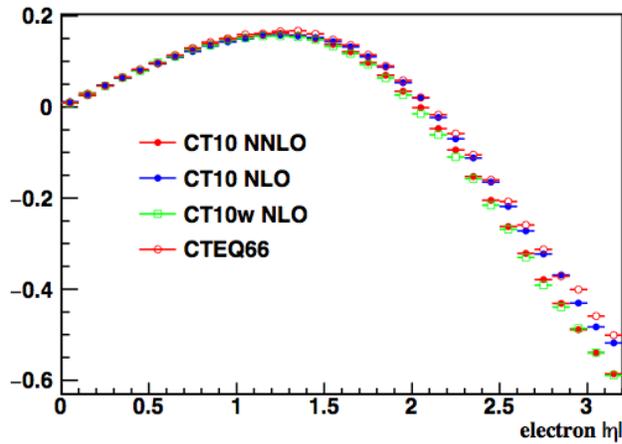


Fig 2: The electron charge asymmetry with kinematic cuts electron  $p_T > 25$  GeV, and neutrino  $p_T > 25$  GeV, as a function of electron eta. The predictions are calculated using MC@NLO with different PDF sets.

And we also provide the comparisons between D0 measured asymmetry and CT10NNLO predictions. As shown in Fig. 3, and a link to all the comparison plots: <http://www-d0.fnal.gov/Run2Physics/wz/wasymmetry/CT10NNLO/>

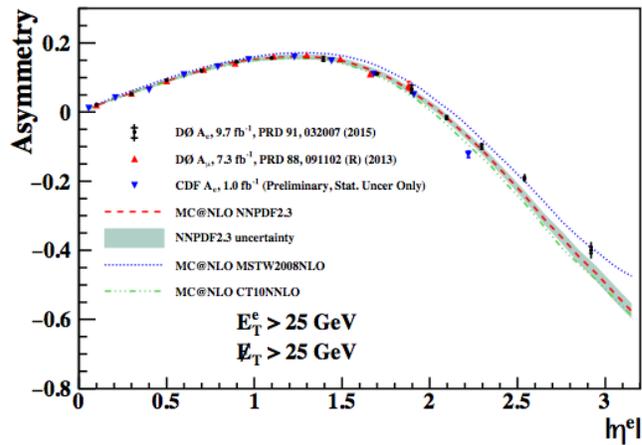


Fig 3: The electron charge asymmetry distribution after CP folding with kinematic cuts electron  $p_T > 25$  GeV, and neutrino  $p_T > 25$  GeV, as a function of electron eta.

Please let us know if you have any further questions, and we hope the Tevatron results can be included in the future PDF fittings.

Regards,  
Hang Yin for the D0 Collaboration