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PDF4LHC21: benchmarking of global PDF fits

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There have been recent updates to the three global PDF fits (CT, MSHT and NNPDF), all using significant amounts of data from the LHC, in addition to the non-LHC data sets that formed the core of previous iterations. Given the impact of the LHC data on the global PDF fits, and the impact that the new PDFs will have on physics comparisons at the LHC, it is crucial to perform a benchmarking among the PDFs and the predictions using these PDFs, similar in spirit to what was carried out for PDF4LHC15, widely used for LHC physics. The end result of this exercise will be a PDF4LHC21 set of PDFs, formed from the combination of the three global PDF sets. This talk will detail the benchmarking that has been performed, the similarities and differences observed, and the potential impact of the PDF4LHC21 PDFs on precision physics at the LHC.

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