

# Correlation tables for a variety of PDF groups for Higgs signal processes and backgrounds.

## ABKM09 Correlation Tables

- abmcorrelations.tbl: Correlations for PDFs at NLO including the effect of  $\alpha_S$  variations for ABKM09 PDFs.

## CT10 Correlation Tables

Presentation of the results for  $W^-$  and  $W^+$  explained in the attached file ct10corr.txt:

- PDFcorrelations\_HiggsCT10.xlsx: Correlations for PDFs only at NLO for CT10 PDFs.

## GJR08 Correlation Tables

- PDFcorrelations\_GJR\_red.dat: Correlations for PDFs at NLO including the effect of  $\alpha_S$  variations for GJR08 PDFs.

## HERAPDF1.5 Correlation Tables

For processes involving  $W^-$  or  $W^+$  bosons the convention is that for each entry - appears first and + second.

- corr-tables-eig-only.xls: Correlations for PDFs at NLO from eigenvector variations for HERAPDF1.5 PDFs.
- corr-tables-mod-wmwp-order.xls: Correlations for PDFs at NLO from eigenvector variations and including model uncertainties for HERAPDF1.5 PDFs. The procedure for calculating correlations is presented in the Yellow Report.
- corr-tables-asonly-wmwp-order.xls: Correlations for PDFs at NLO from  $\alpha_S$  variations, i.e. varying from the central value of 0.1176 up to 0.1196 and down to 0.1156, for HERAPDF1.5 PDFs.

## MSTW Correlation Tables

For processes involving  $W^-$  or  $W^+$  bosons the convention is that for each entry - appears first and + second. For processes where both final states involve a W boson the 4 entries are ordered --, -+, +-, ++, e.g. for the W-WZ correlation the order of the numbers is  $W^-$   $W^-Z$ ,  $W^-$   $W^+Z$ ,  $W^+$   $W^-Z$ ,  $W^+$ ,  $W^+Z$ . For the diagonal entries the convention is same sign followed by opposite sign.

- PDFcorrelationsMSTW\_Higgs.xls: Correlations for PDFs only at NLO for MSTW2008 PDFs
- PDFcorrelationsMSTWas\_Higgs.xls: Correlations for PDFs including the effect of  $\alpha_S$  variations added in quadrature at NLO for MSTW2008 PDFs
- PDFcorrelationsMSTWNNLO\_Higgs.xls: Correlations for PDFs only at NNLO for MSTW2008 PDFs
- PDFcorrelationsMSTWNNLOalphas\_Higgs.xls: Correlations for PDFs including the effect of  $\alpha_S$  variations added in quadrature at NNLO for MSTW2008 PDFs

## NNPDF Correlation Tables

\* PDFcorrelations\_nnpdf21\_red.xlsx: Correlations for PDFs only at NLO for NNPDF2.1 NLO PDFs

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