

# **An interactive web page for the uPDFs and MC**

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Temporary link: <http://wofwiki40/>




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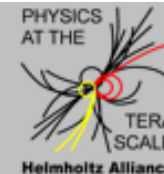
Hadronization

## WELCOME

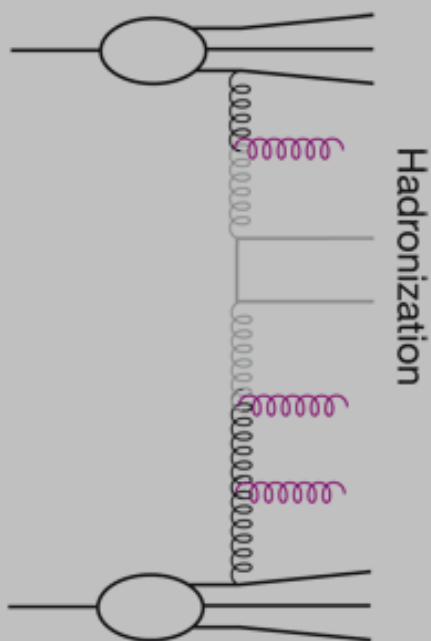
Welcome to the world of CCFM Physics. On this website you can find useful tools such as our [Online Plotting of unintegrated PDFs](#), where you can choose between different parameters to plot the  $xA(x,kt,p)$  distribution as a function of  $x$  or  $kt$ . Or you would like to plot the proton structure function  $F_2$ ? Then our tool [Online Plotting of F2](#) is your choice. In the case you are interested in Monte Carlo Generators, we can warmly recommend [Cascade](#), which is the only hadron-level Monte Carlo Generator based on the CCFM evolution equations. If you need general information about CCFM physics, please read our summary [About CCFM](#) and have a look at our list of interesting [Publications](#).

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## CCFM PHYSICS



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### ONLINE PLOTTING OF UPDFs

Using the form below you can calculate, in real time, values of  $x_A(x, kt, p)$  for any of the uPDFs. You can also generate and compare plots of  $x_A(x, kt, p)$  vrs  $x$  and vrs  $kt^2$  at any  $p$  for up to 4 different parton types or PDFs.

xmin =  xmax =   $p^2 =$   GeV<sup>2</sup>

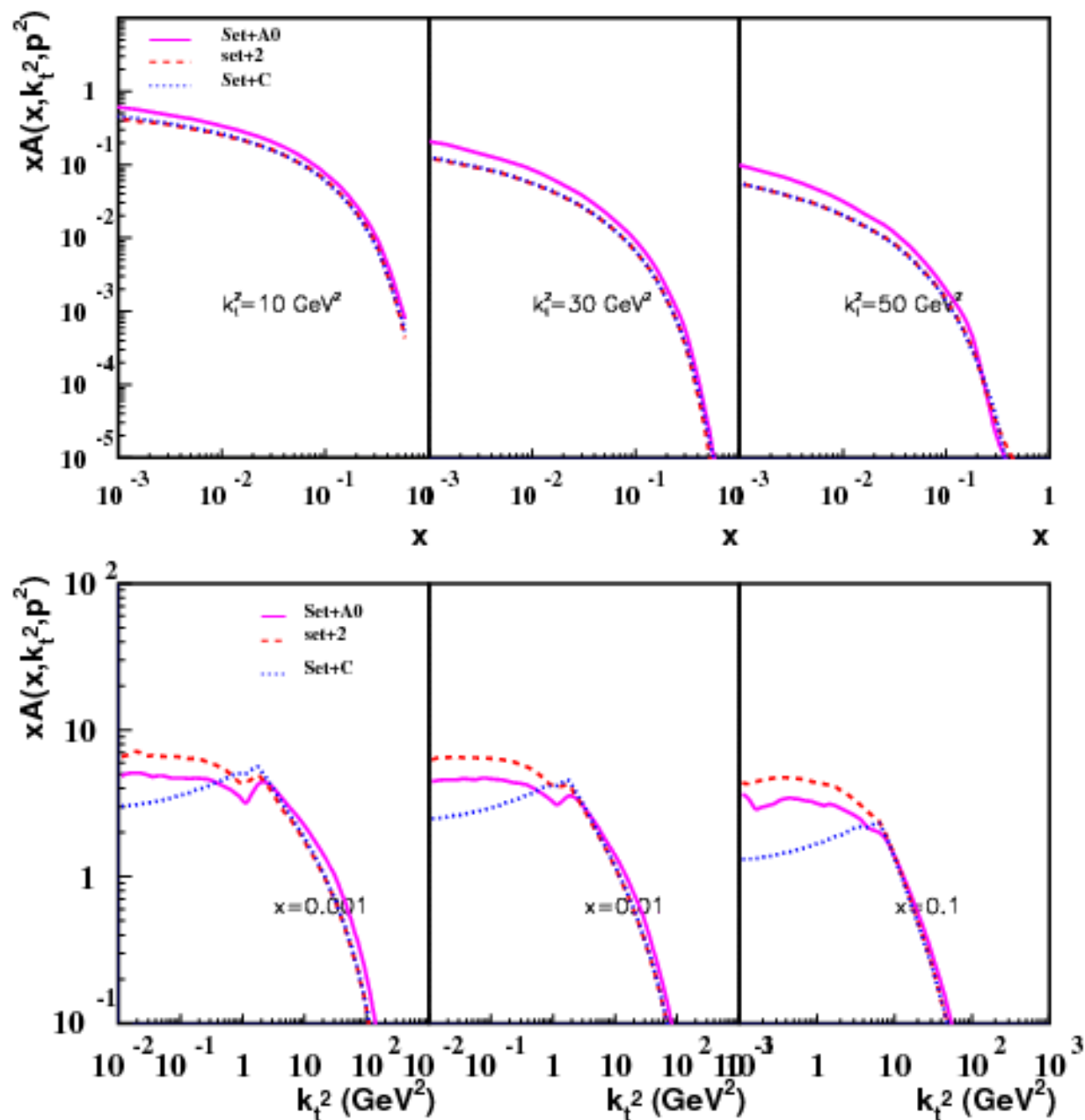
in case a collinear PDF is used (option dPDF, Bluemlein):

- |   |                                     |                                    |                                     |   |                                  |
|---|-------------------------------------|------------------------------------|-------------------------------------|---|----------------------------------|
| 1 | <input checked="" type="checkbox"/> | <input type="text" value="gluon"/> | <input type="text" value="Set A0"/> | <input type="text" value="scale-factor"/> | <input type="text" value="1.0"/> |
| 2 | <input checked="" type="checkbox"/> | <input type="text" value="gluon"/> | <input type="text" value="set 2"/>  | <input type="text" value="scale-factor"/> | <input type="text" value="1.0"/> |
| 3 | <input checked="" type="checkbox"/> | <input type="text" value="gluon"/> | <input type="text" value="Set C"/>  | <input type="text" value="scale-factor"/> | <input type="text" value="1.0"/> |
| 4 | <input type="checkbox"/>            | <input type="text" value="gluon"/> | <input type="text" value="Set A0"/> | <input type="text" value="scale-factor"/> | <input type="text" value="1.0"/> |

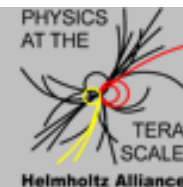
Make the Plot/Calculation

Reset the Form

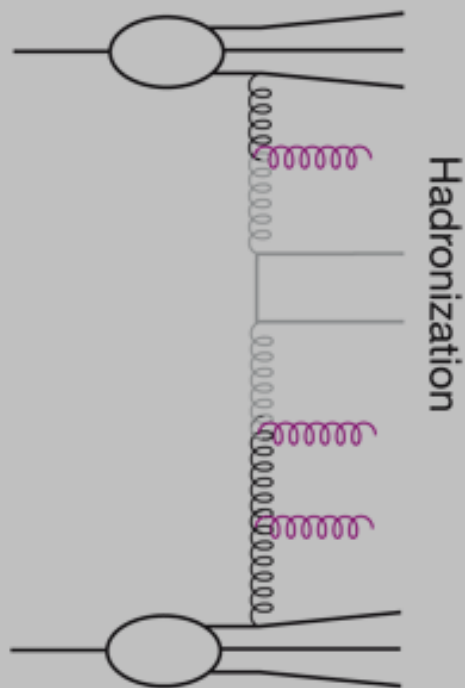
# Plotting of $uPDFs$



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### ONLINE PLOTTING OF F<sub>2</sub>

Using the form below you can calculate, in real time, values of  $x_A(x, kt, p)$  for any of the uPDFs. You can also generate and compare plots of  $x_A(x, kt, p)$  vrs  $x$  and vrs  $kt^2$  at any  $p$  for up to 4 different parton types or PDFs.

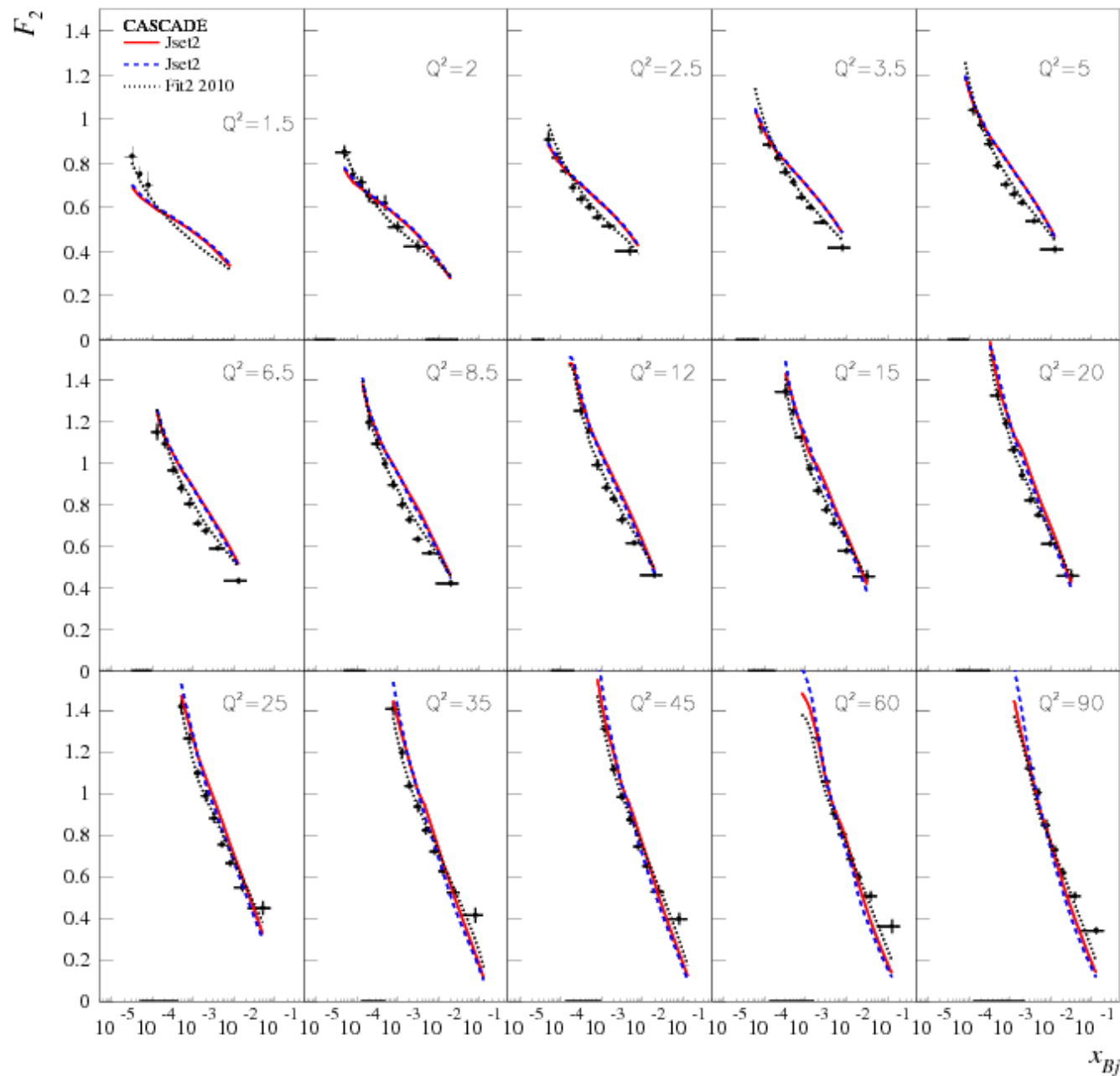
uPDF 1:

uPDF 2:

uPDF 3:

uPDF 4:

# MC comparisons to data



- The first draft of the web page is up. <http://wofwiki40/>
- The calculations and plotting of the uPDFs are done online (with a program running in the background). The MC predictions for the data are more time consuming and the generator have to be run offline in advance.
- Still under construction. In particular we want to add more data comparisons. For example:
  - Update the data comparisons to the new combined F2 data from HERA!
  - More MC predictions for the F2 data.
  - Comparison to more exclusive final states.
  - Add comparisons to non-ep data
  - Add also other MC generators?
- More info to be added, e.g. references to the publications.
- What do you want to see on the web page?

***Please visit and give us feedback!***

- You are welcome to contribute!  
(E.g. running generators/making plots/maintaining scripts)

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