

PEGASUS Plotter

PEGASUS is supplied with a built-in plotting tool (Plotter) allowing one to depict easily the produced differential cross sections and immediately compare them with experimental data. It is a quite independent tool and can be used apart from any calculations made within PEGASUS. The Plotter is very simple and intuitive.

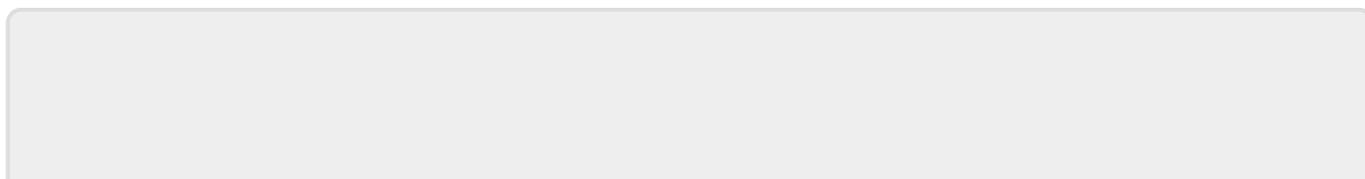
As one calls the Plotter from the main menu of PEGASUS (using the *Tool* → *Plotter* option, or via popup menu, or by pressing the corresponding button on button panel) an empty sheet is created. The following objects, stored in a plain data files, could be added to the sheet (by choosing *Edit* → *Add* option in the main menu or popup menu available with a right mouse button click on the sheet):

- **Curve.** The data file should consist of two columns, corresponding to the rows of x and y values.
- **Histogram.** The data file is the same, as for **Curve**. However, every y value should be mentioned twice, for the both borders of the corresponding bin.
- **Filled area.** A three-columns data file should contain for every x value lower and upper values of y .
- **Text label.** An arbitrary text note inside the plot sheet.
- **Experimental data.** The data file should be in [Gnuplot](#)-compatible format with 6 columns, corresponding to x , y , lower and upper x values and lower and upper y values. Alternatively, the data files in standard `*.yoda` or `*.csv` format (available from [HepData](#) repository) can be uploaded.

As an object is added on the sheet, it can be selected with a left mouse button click and modified according to user own wishes either with a double click or with choosing option *Edit* → *Plottable* in the Plotter main menu or via popup menu. Then the text label in the legend and appearance of the selected object (for example, color, font, size etc) can be changed. If selected object is a **Histogram**, the fiducial cross section (integral with respect to the x variable) is shown in the status bar. One can also set a factor to scale the depicted cross sections using *Edit* → *Multiply by a factor* option in main menu or popup menu.

The default axes setting can be changed from the main menu (*Edit* → *Axes* option) or by double clicking an axis. Besides the font, alignment and other setting one can also set the axes to be linear or logarithmic. From the main menu (*Options* → *Plot size*) or popup menu one can also adjust the size of the graph in pixels.

The plot can be saved for the future editing via main menu options *File* → *Save* or *File* → *Save As* or via popup menu in the internal format (`*.pplot`). The export to a [Gnuplot](#) script is possible via main menu *Export* → *Plot to Gnuplot script* option or via popup menu. The figure can be also printed out or saved in `*.png`, `*.jpg` or `*.bmp` format. Samples for all plotted curves, histograms or data point sets (or for only selected ones) can be transferred (using *Options* → *Export*) to a plain data file (which is compatible, for example, with [Gnuplot](#)) for future usage in other programs.



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