

PGFPlot-A simple tutorial*

Son To

June 13th, 2017

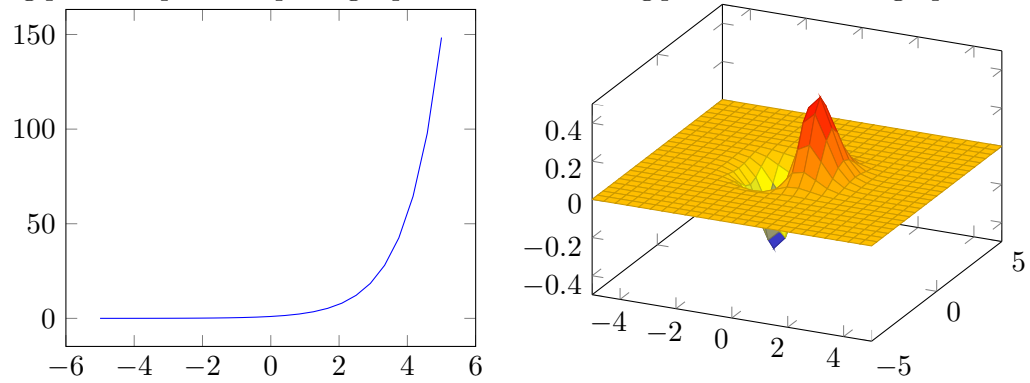
Contents

I. The Basic	2
II. 2D Plot.....	3
II.1 Plotting from data	4
II.2 Scatter plots.....	4
II.3 Bar graphs	4
III. 3D Plots	5
III.1 Contour plot.....	5

*This tutorial is taken from [this link](#) with some modifications for personal pleasure!

I The Basic

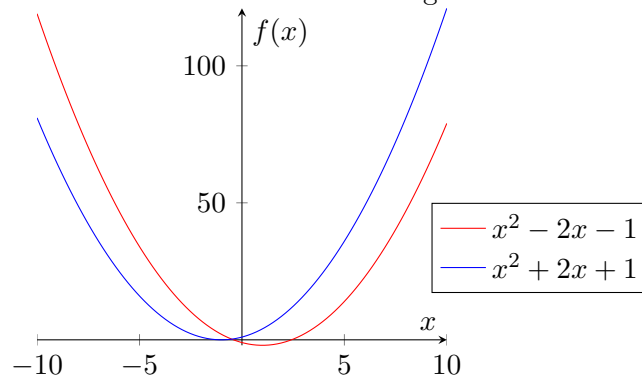
Pgfplots is a powerful package specialized in creating powerful scientific graphs.



We now get to some more details on 2D plot.

II 2D Plot

What the heck...Let's do some damage!

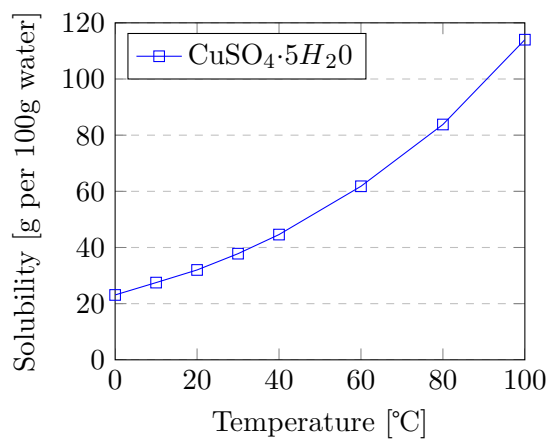


Come on man!!!! Let's make some plots from data.

II.1 Plotting from data

I love to test °C

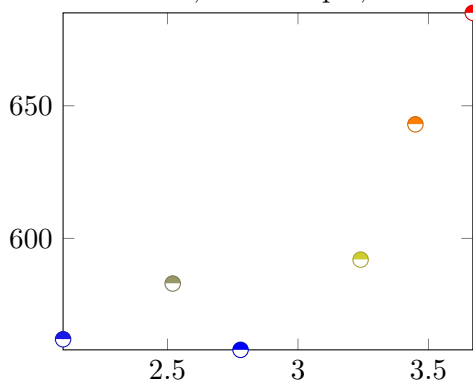
Temperature dependence of $\text{CuSO}_4 \cdot 5\text{H}_2\text{O}$



When the data is in a file, put `\addplot table {file_with_the_data.dat}` instead of using `\addplot coordinates {}`.

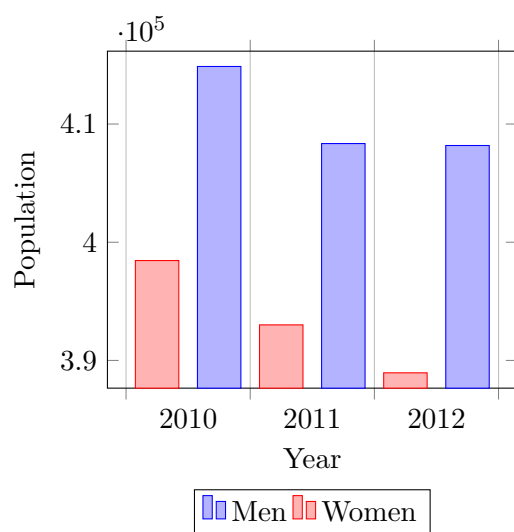
II.2 Scatter plots

Scatter plot is used to represent information by using some kind of marks, which are common, for example, when computing statistical regression.



II.3 Bar graphs

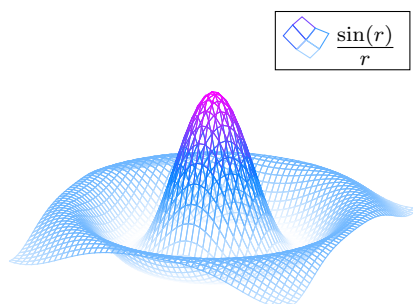
Bar graphs are used to display gathered data.



III 3D Plots

For the basic plot, we refer to section I. We now use mesh feature for the plot.

Example using the mesh parameter



III.1 Contour plot

The data needs to be calculated by external programs (gnutplot, mathematica, etc...)

Contour plot, view from top

