

CS1031: Lab#1

The lab covers Matlab basics, focuses on plotting in Matlab. You will prepare different types of plots and use basic Matlab structures and commands (vectors, random functions, sine and cosine functions, multi-plots).

Use predefined names for figures names, etc. Comment the source code.

1 Plotting on single figure

a) Plot a cosine function of amplitude 1 and period 2π in black color in the same plot of a red sine function of amplitude 0.5 and period 2π (the red sine plot should use the stem plot). The plot should look like the following:

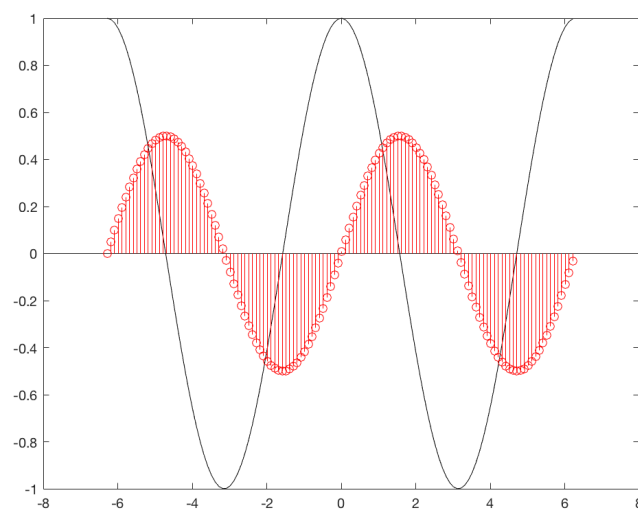


Figure 1: Plotting on single figure - sine & cosine

b) Now plot a sine curve of amplitude 1 and period 2π in blue color, with added random noise.

Hint: first create the points for drawing a sine wave, then add to each point in the 'y' axis a random number using the function "randn", multiplied by a factor of 0.2. Remember that "randn" can create a vector of random numbers. The plot should look like the following:

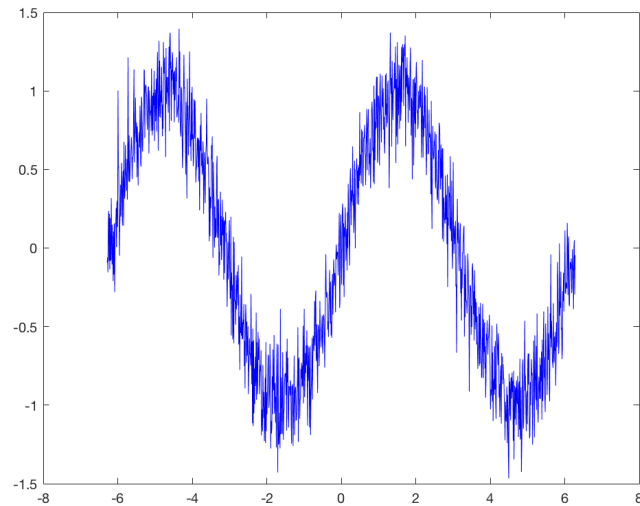


Figure 2: Plotting on single figure - sine with noise