Lab 6

March 11, 2024

0.0.1 Review from Last Lab

matplotlib is a plotting library in Python that is very versatile and useful for plotting and visualizations within Python.

We can use linear, semilog, and log plots to display the range of data differently within a plot.

fig, axs = plt.subplots(1, 3, figsize=(_,_)) plt.figure(figsize=(_,_)) are useful functions

When using the axs version of the subplots, be sure to use axs[_].set_title() instead of axs[_].title()

Erorrbars are another useful type of plot you can do in matplotlib. We define this using plt.errorbar()

0.0.2 Importing Data

Text Files (.txt, .csv): Simple and widely used format for storing data. Excel Files (.xlsx): Popular format for data with multiple sheets and complex structures

Binary Files (.bin, .dat): Efficient for storing large datasets, used in simulations and experiments

Others: JSON, XML, HD …

Using Numpy, we can import these files into Python using the following code.

import numpy as np data_set = np.loadtxt()