MatplotLib

Site: <u>TMT Bangladesh</u>

Course: Introduction to Scientific Programming

Book: MatplotLib

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# Table of contents

- 1. Introduction to MatplotLib
- 2. Tutorial
- 3. Exercises

# 1. Introduction to MatplotLib

matplotlib is a Python library developed to provide developers with different visualization functionalities. It allows us to create static, animated, and interactive visualizations.

Using matplotlib, you will be able to generate different sorts of charts and plots from your data, e.g.:

- Line plot
- Histograms
- 3D plots
- Streamplots
- Bar charts
- Pie charts
- Scatter plots
- Polar plots

In this part of the course, you will learn how to exploit matplotlib to generate different charts and plots from your data in a Python script.

## 2. Tutorial

In order to learn the basic concepts about matplotlib, you should read the three following tutorials from the official matplotlib website.

- <u>Usage Guide</u>, which covers the basic usage patterns and best practices that help you work with the library,
- Pyplot tutorial, introducing the Pyplot interface of matplotlib library,
- Image tutorial, discussing the functionalities in the library to plot images.

These introductory tutorials, provide you with sufficient knowledge to work on the matplotlib exercises ahead.

## 3. Exercises

### Exercises:

- Exercise ISC P09 MatplotLib
- Exercise ISC P09 MatplotLib data