In today's lecture we will consider file input and output in MATLAB.

## To do List

- 1. Your vectorized implementations of the Trapeziodal and Simpson's method will be part of your next homework. Thefore I will not provide solutions today.
- 2. Watch the video on file input and output in MATLAB and try the exercise below.
- 3. Note: I have provided scripts of demonstrations shown in the videos in file\_input\_output.m

## Exercise

- 1. Visualizing the trend of concentration of  $C0_2$  in the atmosphere over time The file emissions.txt (downloaded from NOAA) contains the average  $C0_2$  concentration per year.
  - (a) Use fscanf to read the data in the file emissions.txt
  - (b) Use the data to plot the growth of concentration of  $C0_2$  over time
  - (c) Use the data to plot the annual percentage increase in  $C0_2$  concentration over time.
  - (d) Save the annual percentage increase values in a file.
- 2. Your solutions should look like the figure below



## **Objectives**

By the end of this lecture, you should be able to read and write to files in MATLAB.