Spring 2016
Torres

INF-510
Homework 3
November 22th, 2016

**Due date: TBA**

# Questions:

{i} Explain the problem solved, explain the algorithm and reproduce the outputs of programs: 27 (very important), 34, 35 and 37 from the textbook: Spectral Methods in MatLab, by Lloyd N. Trefethen.

{ii} From the textbook: Spectral Methods in MatLab, by Lloyd N. Solve exercise: 10.4.

{iii} From the textbook: Spectral Methods in MatLab, by Lloyd N. Solve exercise: 10.7.

# Instructions:

(a) The homework may be done in Jupyter Notebooks. Any other language must be discussed with the instructor.

(b) The theoretical part of the homework must be written in LaTeX and the computational part in Jupyter Notebook.

(c) The structure must be the following

Only once Title, name, email and rol.

For each question A small description of the problem and assumptions.

For each question Discussion of the solution (include numerical experiments here). *Please be brief but clear.*

For each question Conclusions.

For each question References.

(d) The final work is personal but I do encourage you to discuss partial results with your classmates.

(e) Any exception, must be discuss with the instructor in advance.

(f) If you don't follow these instructions, you will get a 0.