FINAL PROJECT (INTRODUCTION/METHODS)

Scientific Computing II
Fundación Universitaria Konrad Lorenz
September 28, 2023

The final project is a great opportunity to attack a substantial (but tractable) computational problem. This could involve a numerical simulation or data analysis. **The work does not need to be an original research**. However, a problem relevant to your future research or thesis would be a good idea. I will available to provide advice and guidance at any stage.

1. (0/10) Based on the comments you received, improve your project proposal and closely address the following items:

- giving a descriptive title,
- a summary, in your own words, of the scientific problem to be addressed in your paper,
- a desription of the simulation code and problem setup you plan to use.

2. (0/20) Write the scientific introduction (2-4) pages of your project, explaining in great detail the problem you are studying and why it is interesting, and reviewing relevant theoretical, computational literature. This should demonstrate that you have read at least a paper and that you can explain (with equations!) what are the mathematics behind your problem. Remember to

- always describe (as best you can at each point) the approach you intend to take,
- provide some references (write them properly).

3. (0/20) Write a **complete description** of the code you are using, the equations being solved, the numerical methods employed and why they are appropriate to your problem. **Show some preliminary results of its use. This does not mean that you paste your code in the PDF. In other words, you are required to explain, using words, what the code does and why you are using those specific methods. Your description should have enough details, such that someone can reproduce your results by writing their own code.**

This version is not anymore an abstract or a high level description of the project. It should look more like the intro and methods section of a regular paper you can find on a journal.