FINAL PROJECT (PROPOSAL)

Scientific Computing II
Fundación Universitaria Konrad Lorenz
September 12, 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) Find a paper that you want to reproduce, or a problem that you want to tackle.

2. (0/20) Provide a complete description of the problem. That is, answer at least the following questions: what (scientific) problem do you want to solve? To which branch of mathematics does it belong? What are the relevant equations? How do people typically solve that type of problem? What specifically have people done in the past? Why does it make sense to write a code that runs in parallel to solve that problem?

3. (0/5) State your goals and some objectives of your project. Formulate an objective that can be achieved by using parallel computing techniques.

4. (0/10) Describe (as best you can at this point) the approach you intend to take. Please be specific, where you mention which equation(s) you want to solve, the algorithm(s) (even if you do not fully understand them!), possible type of analysis and results, etc.

5. (0/5) Provide more than three journal references and cited properly. References to websites are not allowed.