

This document outlines each milestone of the final project. If you are working in a **pair**, be sure to have a topic that is substantially more ambitious ( $2\times$ ) than a single author topic. In addition, please add a subsection after the conclusions that outlines each author's contributions to the code and to the write-up — this should be split more or less evenly.

## **Project Topic (5%)**

*What are you studying?*

At this milestone you should have a clear idea of your selected topic and a draft of an abstract that describes what you wish to study.

## **Project Outline (5%)**

*What is the basic outline of your project?*

A basic outline, paying attention to the final rubrics, is due. The basic structure along with some additional summarized bullet points should be included.

## **Project Numerics (10%)**

*Which numerical experiments do you have started?*

You should have some substantial progress on the numerical results. Provide a summary of where these results are at and a percentage of total results that you expect.

## **Project Draft (10%)**

*Which numerical experiments do you have started?*

At this point you should have fairly complete rough draft with numerics and a majority of the writing complete.

## Project Final Version (70%)

This is the final version of your report. It should be less than or equal to 10 pages and the following scheme will be used in the grading:

### [20 of 100] Problem Statement

- What is the problem/method/application that you are studying?
- Why is this important or interesting?
- What are a few related concepts? (This does not need to be an exhaustive literature survey – but some context is necessary)
- What are the details of the problem/method/application (enough to make a convincing case that you know what you're doing)

### [20 of 100] Approach

- How will you study this problem?
- If it's a method you're studying, what are you testing and why?
- If it's an application that you're studying, what method(s) will you use and why?

### [30 of 100] Numerical Results

- Show some numerical results.
- Discuss the numerical results.
- Show that you understand the numerical results.
- Did you make sensible numerical tests?

### [10 of 100] Concluding remarks

- Critique the methods that you employed.
- What worked well?
- What did not?
- What would you like to do with more time?

### [10 of 100] General readability and presentation

- Did you use clean, easy-to-read figures?
- Was your write-up easy-to-follow?
- Was your write-up less than or equal to 8 pages (including figures/references)?
- Did you make a convincing case?

### [10 of 100] Code

- Did you include code and did your code execute what you claim?