Spring 2021
Advanced Computational Physics 377

Final Project Report – Information and Details

The Final Project accounts for 30% of your grade in the course

Important Dates

Monday, 12th April, 8:00 PM
Brief (max 1 page) Final Project Proposal Due

Tuesday Lecture
We will **not meet in-person** in the classroom (no new lectures or new material to cover). During the regular lecture time (2:00 – 3:15 PM), we will meet on zoom on April 13, April 20, April 27, and May 4. This zoom meeting is for students who would like to have additional discussions regarding the final project or need help with Project or HW assignments. However, if there is general consensus based on student preference, we will continue to meet in-person in the lecture classroom and I can keep the zoom meeting open as well.

Tuesday and Thursday Labs
We will **continue to meet** in-person in the labs (5:00 – 6:55 PM). **Use** or **block** this time to work on the Final Project. Do not wait. Start working on the project.

Tuesday, 4th May, 11:00 PM
Final Project Submission Deadline

Submission should include:

> ***Codes and data***: All project-related files. It should include Python codes, project related input data and output data files.
>
> ***Project Report***: Uploaded to **myCourses** (as a single PDF file)

Details about the Project Report are given below:

Project Report

The report should be written clearly. You may attach hand-drawn sketches and diagrams if you wish, but these should be **clearly labeled and legible**. The report should have a **cover page** giving your **name** and the **project title**.

The report must include the following sections:

(1) Brief introduction of the topical background, goals of the project, and describing the fundamental physics (~1-2 pages).

(2) Program manual explaining briefly the design and purpose of the program. A clear description of how to run the program should be included. It is better to include a flowchart (~ 2 pages + diagrams & program listing).

(3) Brief description of your investigations using the program, which should include results presented as graphs and/or tables (~2-3 pages + graphs/tables as necessary).
(4) Concise discussion of the results and a brief summary. What do your computer experiments tell you about the physical system you have modeled? (Approx. 1-2 pages)

(5) List of all the references you used for your research. This may include books, articles, and web pages.

The page numbers in parentheses are provided as guidelines. You don't necessarily have to follow it precisely, but don't stray too far from the numbers. In general, you should not include long lists of numbers in tables; use a graph instead.

Assessment

I will **grade** the **Final Project** using the guideline given below:

(a) Background research (context, physics, aims): 20%
(b) Program quality (does it work, produce accurate results?) and documentation: 30%
(c) Results and discussion: 25%
(d) Report (overall presentation quality): 25%

Note: Extra credit may be awarded, especially for very challenging projects.