

PH 366 Midterm Mini-project Description

You will have two class periods to work on this assignment. Collaboration is welcome during the mini-project, but **you will be expected to submit your own individual work**. This assignment is graded based on the rubric supplied in the Course Resources module.

The mini-project will involve plotting electric potential from a data set and computationally determining the locations and values of point charges that produced the observed potential.

You will be given:

- The context of the problem at hand
- A statement of your overall goal for the mini-project
- Some existing code to get you started
- Some smaller required tasks and/or clarifications that you must address in your solution
- Discussion prompts on the limitations of your findings
- Reflection prompts on how you built your solution and what you learned

Over the two class periods, you must flesh out a "report" (your .ipynb file) that addresses the following:

- State the problem and goal in your own words.
- Describe your solution plan and the methods you intend to use (you can include language from the given tasks here).
- Building on the given code, provide and clearly explain a computational solution that meets your goal.
- Explain your findings using outputs from code and clear visualizations.
- Discuss the limitations of your findings using the given prompts.
- Reflect on your project by directly responding to the given prompts. The reflection topics are usage of outside resources and learning challenges.