Report Score =53/55+18/20 code+30/30 presentation=101/105 total project score

The requirements are

Report:

1) Your report must be typeset in LaTeX, use the RevTeX style manuals used by Physical Review Journals.

4 generally excellent, but remember equations, refs are parts of speech (see highlights)

2) Figures should have clear labels and captions. All figures should be referred to in the text and tell part of the narrative.

4 ⇒ well done, but near end a few missing figure refs, etc (ran out of time?)

3) Your paper should have a clear abstract, no more than a paragraph, that highlights what you have done.

5

4) You should explain the context and motivation of the physics problem you are solving.

Really excellent discussion of various trends & preceding work

5

5) You should write-down all equations solved by your code in the report.

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You did this in words, and very well!

In the future, be a bit more concise or you will lose audience.

6) You should explain the computational methods used to solve these equations – if they are methods that were discussed in class, say so! You are welcome to use libraries (e.g. scipy) instead of writing things from scratch, but be sure to acknowledge all libraries used.

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7) Have a discussion or figure showing that your code can reproduce a classic test case or known solution If you failed to reproduce published results or classic test cases, please hypothesize why.

5 [Nice comparison]

8) If your code produces some numerical result (e.g. the binding energy of something), have the result stated clearly in a table. If you noticed an interesting trend, have clear figures showing that trend.

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9) You should have a clear reference list, typeset using BibTeX, citing all methods/outside software packages used.

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10) You must read and draw on 2 primary physics literature references (if you are doing a topic I suggested, these must go beyond the suggested reading), and as many pedagogical/textbook references as you like.

!!!! Excellent 5; nice finds & trends that surprised you in literature.

11) If your code takes more than a few minutes to run, explain the computational challenges of your project in the report.

5 Good discussion of scaling

12) Make sure to acknowledge your team and collaborators (and anyone you sought advice from) in your report.

Code:

1) Does the code run?

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2) Is the code well structured?

4 — yes— could have implemented some swap routines additionally as functions and had them called upon by all your routines, but generally this is an expensive problem and you did a nice job getting things working

3) Is the code well documented?

4 — yes, could use more of a user guide on how to run things, but generally very good comments

4) Is the code self-sufficient?

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Presentation:

You should prepare a keynote/Powerpoint style presentation on your work. This presentation should

1) Lay out the motivation for the physics problem to be solved.
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2) Lay out the equations to be solved.
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3) Have helpful schematics to explain the problem.
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4) Name the computational methods used or to be used – if they were covered in class, review them. If not, briefly explain them.
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5) Explain what code you have written and what it is intended to do?
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6) Explain if your code is working. If yes, show some preliminary results (preferably as a graph or animation) and discuss if they make sense to you. Why or why not? What do you plan to try in this project? What are the next steps? If not, what are you doing to troubleshoot your code and what are the major sticking points?
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Nice broad level overview – (shifting populations, origin, time evolution of). Random numbers, and matrices. Cartoon schematic showing how it works – very relevant figure showing how the model really works. Satisfaction= number like me near me/total number of neighbors.

Nice step by step discussion of algorithm. [neighbor condition explained using the schematic from earlier]. 2-4.

Animation of initial – just one that does heterogeneous.

People pleaser's nightmare. --- aysmptotitc fluctuating step.

Next steps – swapping and moving consistently, multiple populations, incorporate aspects of distance preference to similarity…..good goals.