

Self-reflection - Think about how the project is going and how you are both contributing. Write out a document for the last couple of weeks worth of work including this one that describes: Who did what? How does it feel like the contributions for the members of your pair are equal? Regarding the project specifically, what questions do you need to answer to continue to move forward and what help do you need from me or others?

3-27-17

Starting out, we decided that extrapolating on Kristen's solo project was the best plan, as there is a lot more potential for further investigation. It also provided a strong theoretical base for us to start with. For the timeline, we worked together to create a thorough and focused plan of events. This week, we met and talked about what the radiation pressure forces are, and extrapolated them into three dimensions. The questions we plan on tackling starting out for this next week is to derive the potential corresponding to these forces, and find the wavefunction using Schrodinger's equation this might need application of perturbation theory.

So far, Kristen has provided most of the theoretical background. Consequently, Parker has been reading up on everything to get up to speed and doubly making sure that the theory is correct and it is comprehensible to an outside audience, important as this information is to be presented. We expect the workload to balance out further as we progress in the project.

4-3-17

This week we worked together to prepare the potential for a particle moving in one direction. Kristen continued working on fleshing out the theory and calculations, while Parker worked to verify and plot (finding a way that conveys the most relevant information) some of the calculations in jupyter notebook. Onwards, we are looking to prepare the potential in 3 dimensions, if that is achievable within our means.

4-10-17

This week we tried to make more sense out of the potential plots we had previously made. It turns out that Kristen forgot a minus sign in the potential. Parker expanded the plotting to a particle moving in 2-dimensions. He produced a variety of plots to be used on the poster. After Kristen and Parker attempted to make sense of a wavefunction calculation, Kristen spoke with Danny to plan the rest of the project. Kristen put together the latex document that organizes the information.