

Paired Project - Paired Project Problem

The general objective is to get the audience to learn about the process of modeling, after we have advanced ourselves. Particularly, the models that are finalized will be protons before they collide in an accelerator. Essentially, the module will let us observe the motion of charges in electric fields and magnetic field. They are not necessarily constant. Fundamentally, we are following through the steps to formulating a Super Proton Synchrotron. Theoretically, we are using linear calculations, from FODOS cells to consider on focusing and defocusing sectors, and if we could, we would determine oscillations for one or several revolutions around the accelerator. The finalized models and the essential theoretical calculations will be displayed on the poster. Non-essentially, we will not take into account the errors of the magnetic field, with a time-limit of several weeks.

Currently, the process of the project is effective. Ruth and David, respectively, are contributing computationally and physically. Within these two weeks, Ruth has learnt how to use the program she has installed and utilized demos to do simple models. David evaluated Ruth's previous research and engulfed himself in the linear calculations. It does feel like the contributions are equivalent.