

## Billiard Simulation – PHY 494

### Team Member Contributions

**NSoderberg103** – This team member was responsible for the majority of the final code and debugging of the project. Early work included the collision function for both wall and other ball collisions. This member also significantly improved N-O'Brien's code concerning the ball removal function. More code by this member includes compiling everything into a final, working simulation, as well as complete debugging of the program and the creation of a gif animation for proper visuals.

**N-O'Brien** – This team member was responsible for a lot of the earlier code and simulation ideas. While much of that code was later changed it served as a basis to build off of for the project. This early code includes things such as hole implementation ideas, ball removal functions and using python class objects. Since objects were not taught in class this member frequently got help during TA office hours to learn and improve upon the project code. The main contribution of this member was the object module which was crucial to the code and not heavily changed by NSoderberg103.

**kitwingfung** - kitwingfung worked on creating different simulations for testing, setting up different amount of billiard balls, altering the pocket sizes, placing balls in different formations, and breaking with different angles. As well as, plotting different setups. He also worked on the poster for presentation.