**Monte-Carlo Glauber Model Simulations of Nuclear Collisions**

In order to understand the geometry of nuclear collisions, an iPython-based simulation of the Monte-Carlo Glauber model was created.  The simulation utilizes nuclear charge-density-distributions to create nuclei and cross-section data from the Particle Data Group to generate large samples of nuclear collisions.  The simulation correlates the number of nucleons participating in a collision as well as the number of binary collisions as a function of the impact parameter for each event. Good agreement between the program and expected results for Au+Au collisions at beam energies, , of 200 GeV is demonstrated. The program also makes predictions on future RHIC experiments including He+Au collisions at = 200 GeV. Individual collisions can be visually represented, demonstrating the event-by-event variation of particular geometric overlaps, which are obscured in the ensemble data.